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# REVIEW OF LABOR AND ECONOMIC CONDITIONS

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MINNESOTA DEPARTMENT OF ECONOMIC SECURITY

RESEARCH AND STATISTICAL SERVICES OFFICE

390 N. ROBERT STREET, SAINT PAUL, MN 55101

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Comments and other correspondence concerning the publication should be addressed to the Editor.

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| Editor | R. Pinola |
| Assistant Editor | Bev Jones |
| Staff | Ben Boyle<br>Ron Daws<br>Susan Hamper<br>Bruce Steuernagel |

# Editorial Comment

## THE EIGHTH VERSION OF UNEMPLOYMENT 1/

by R. Pinola

"My word, Mr, Holmes, have you gone bananas? A zero rate of unemployment? Surely you jest!"

"Not at all, Dr. Watson, I've given the matter considerable thought and the logic is impeccable."

"Pray tell, Mr. Holmes, would you care to elucidate?"

"My dear Dr. Watson, it's really quite simple and I wonder that some politician or Harvard MBA hasn't thought of it. You see, unemployment is neither accurately defined or measured. Unfortunately, modern economists and the BLS have done more to confuse than clarify the issue by attempting to distinguish frictional, structual, and demand-deficient unemployment instead of addressing the basic question. As a result, in measuring unemployment they have relied upon some nebulous definitions that are not of much use for policy analysis."

"Well, Mr. Holmes, where do you suppose the moderns have erred, and what is the clue to better policy formulation?"

"To put things into proper perspective, Dr. Watson, we must go back to the basics. You may recall that our good friend, Adam Smith, observed that the system was always tending toward full employment and, that in an exchange economy, markets would clear once given full wage-price flexibility. What it means is that if you are desirous of securing some goods or services you must either produce them yourself or produce something sufficiently attractive so that others are induced to trade. In a way, Jean Baptist Say put it very well when he said supply creates its own demand. Clever chap, that Mr. Say. By stripping the markets of its money illusion he demonstrated that unemployment, if it exists, is all voluntary and requires no special policy or tinkering with the system to resolve it."

"But, Mr. Holmes, what about the poor chap who worked for U.S. Steel at $18 an hour and is now without a job because there is no demand for steel?"

"Elementary, Dr. Watson, he is voluntarily unemployed! In the words of Mr. Say, this poor chap needs to re-examine his options. Suppose I made widgets that no one wanted in trade, or for which my exchange rate was too high; it would surely be to my advantage to engage in some other endeavour or make my exchange rate so attractive that no one could resist my widgets. My failure to do so would, of course, leave me without a market and unemployed, so to speak. But would I be voluntarily or involuntarily unemployed? Naturally, you would agree with me that its all voluntary."

Continued on page 17. See: EDITORIAL COMMENT

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1/ Seven versions were advanced by the late Julius Shisken in 1976 as Commissioner of the Bureau of Labor Statistics. The BLS periodically provides estimates of unemployment based on these seven versions in the Monthly Labor Review.

# Research Summaries

## EDUCATIONAL SLIPPAGE

By Bruce Steuernagel

This month's Research Summary reviews a monograph[1/] developed by two economists at the New York State Department of Labor which addresses the changing supply and demand trend in employment of college graduates over the past 20 years. The authors have applied shift-share analysis to data on employment by level of educational attainment to develop estimates of shifts which have occurred and to develop projections of the educational attainment required for future job openings for individual states. It is the authors' feeling that by assessing more accurately the educational requirements of future job openings, states can better allocate aid to colleges and universities. In addition, if the educational preparation of the labor force matches the educational requirements of the job, there will be less frustration and disillusionment among workers who otherwise may find themselves working at jobs below their level of education.

In the past twenty years, we have witnessed a marked change in the demand for and supply of college graduates in the United States. Between 1962 and 1969, an average of 575,000 college graduates entered the labor force each year. Approximately 73 percent of the graduates went into professional and technical jobs. In the 1970's, the annual average number of college graduates doubled. However, as Table 1 shows, employment growth in industries which in the past employed many college graduates did not continue to grow in the 1970's as they did in the 1960's. This is especially true of the educational services industry which continues to experience a decreasing demand for teachers as the baby boom generation passes through the schools. According to the Bureau of Labor Statistics, 54 percent of college graduates found work in professional and technical jobs in 1981. Higher percentages of college graduates in 1981 than earlier years have found employment in managerial and sales jobs, often as specialists in technical services. However, a small but growing proportion of college graduates have taken jobs in blue-collar and service jobs, jobs which require less education. This results in underutilization of these workers' skills and increases worker frustration.

The composition of college-manpower intensive industries used in Table 1 was developed by Richard B. Freeman in his book, The Overeducated American.

Table 1 Compound Annual Percentage Change in Nonagricultural Wage and Salary Employment in College-Manpower Intensive and Other Industries United States, 1960-1970 and 1970-1980

| Industries | 1960-70 | 1970-80 | Change in Rate of Growth |
|---|---|---|---|
| Total | 2.72 | 2.48 | -0.24 |
| College-manpower-intensive | 4.03 | 2.63 | -1.40 |
| Noneducation: | 3.43 | 2.69 | -0.74 |
| Professional services | 4.95 | 3.69 | -1.26 |
| Federal public administration, except postal service | 1.71 | 1.01 | -0.70 |
| Finance, insurance, real estate | 3.32 | 3.55 | 0.23 |
| College-intensive manufacturing | 2.46 | 1.01 | -1.45 |
| Education | 5.82 | 2.46 | -3.36 |
| Other (non-college manpower intensive) | 2.19 | 2.42 | 0.23 |

Source: Current Employment Statistics Program, Bureau of Labor Statistics, U.S. Department of Labor

1/ Estimating Educational Attainment of Future Employment Demand for States, Monograph No. 9, U.S. Department of Labor. October 1981. Prepared by Wayne Cotter and Sheldon Dorfman, Associate Economists, New York State Department of Labor.

The New York study utilized the technique of shift-share analysis to examine area employment changes which occur in various educational attainment classifications over a period of time. Employment growth or decline of an educational attainment category can be subdivided into the following components.

1. Overall growth factor - the employment change in an educational attainment classification that would result if each educational attainment group were to change at the same rate as total employment.

2. Occupational change factor - the employment change that results from the change in the distribution of employment among occupational groups from the base period to end period.

3. Educational change factor - the employment change that results from changes in the educational attainment distribution within each occupational group from the base period to the end period.

Table 2 shows the components of change for Minnesota from 1970 to 1978. The 1978 data was calculated using the New York researchers' methodology for states which do not have annual Current Population Survey data on employment by level of education. The methodology utilizes changes in national educational attainment distributions between 1970 and 1978, 1970 Minnesota Census data on educational attainment, and 1978 Minnesota employment by occupation from the Current Population Survey.

Table 2 Components of Change in Educational Attainment of the Employed Labor Force, Age 16 and over, Minnesota, 1970-1978

| Years of School Completed | 1970 Employment | 1978 Estimated Employment | Net Change | Overall Growth | Occupational Change | Educational Change |
|---|---|---|---|---|---|---|
| Total | 1,464,300 | 1,920,000 | 455,700 | 455,700 | - | - |
| Elementary, 0-8 | 234,800 | 149,300 | -85,500 | 73,100 | -13,900 | -144,700 |
| High School, 1-3 | 244,500 | 235,100 | -9,400 | 76,100 | -900 | -84,600 |
| High School, 4 | 571,600 | 826,500 | 254,900 | 177,900 | -6,500 | 83,500 |
| College, 1-3 | 219,600 | 363,200 | 143,600 | 68,300 | 8,100 | 67,200 |
| College, 4+ | 193,800 | 345,900 | 152,100 | 60,300 | 13,200 | 78,600 |

To give an example of how the components of change technique can be interpreted, we will look at the results for the college, 4+ category. Between 1970 and 1978, employment of persons with four or more years of college education increased by 152,100. If employment in this category would have increased at the same rate as total employment, it would have increased by only 60,300. Over the 1970 to 1978 period there was a shift in the distribution of occupational employment in Minnesota. In 1970, the professional and technical occupational category comprised 15.7 percent of total employment compared to 15.9 percent in 1978, while employment of managers increased its share from 8.6 percent in 1970 to 11.0 in 1978. A rise in employment in these occupational categories signals that employment in the college education attainment categories should also rise. About 13,200 jobs or 8.7 percent of the increase in employment of college grads was due to this factor. For college graduates, the largest component of employment change is the educational change factor. Approximately, 52 percent of the total employment change between 1970 and 1978 resulted

Continued on page 7. See: RESEARCH SUMMARIES

# The Job Market

## THE BUSINESS SERVICE INDUSTRY

By Bev Jones

### Introduction

Employment in the Business Service Industry has shown strong gains over the past 20 years, resulting in a quadrupling of employment since 1960. It has also held up well in the current recession, reporting modest gains in employment in monthly year-ago comparisons throughout 1982. Growth in this industry, contrary to current employment trends, has singled it out for a closer look. This article will look at the Business Service Industry's composition, employment and occupational staffing patterns.

### The Industry

The Business Service Industry is comprised of establishments primarily engaged in rendering services to business establishments on a fee or contract basis. Business Services included in this group are advertizing, mailing services, building maintenence services, employment services, management and consulting services, protective services, equipment rental and leasing, commercial research development, and testing, photo finishing, and personnel supply services.

There are 4,200 Business Service establishments employing nearly 58,000 workers. This comprises nearly three and one-half percent of the State's nonagricultural wage and salary employment. Approximately 88 percent of this employment is in the Minneapolis-St. Paul nine-county area. This Industry grew by nearly 64 percent from 1970 to 1978 and is expected to increase another 47 percent by 1985.

Forty percent of the Industry employment is classified as Miscellaneous Business Services, 22 percent Personnel Supply Services, 16 percent Building Services, and ten percent Computer and Data Processing Services.

### Occupational Staffing Patterns

Occupational staffing patterns for the Business Service Industry, as shown on Table I, indicate that 68 to 70 percent of the workers fall into three broad occupational categories; namely, Clerical; Professional, Technical, and Kindred; and Service.1/

Clerical workers comprise the biggest bulk (27 to 30 percent) of this Industry's employment in spite of the relatively low growth rate of 46 percent for the 1970-78 period. However, employment of Clerical workers in this Industry is expected to increase at a faster pace (54 percent) during the 1978-85 period. The four largest occupations are General Secretaries (24.8 percent), Typists (11.1 percent), Office Machine Operators (9.3 percent), and Bookkeepers (7.8 percent).

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1/ All references to 1985 employment or staffing patterns are based on data from Minnesota Employment Outlook to 1985, Minnesota Department of Economic Security Research and Statistical Services Office, January 1981.

There was an increase in the proportion of Professional and Technical workers in this industry from 1970 to 1978 due to their 87 percent rise in number. However, this upward trend is not expected to continue, and the 1985 staffing patterns for Professional and Technical workers is anticipated to remain between 21 and 22 percent with a growth rate of 45 percent between 1978 and 1985. Approximately 60 percent of these workers fall into four occupations: Personnel and Labor Relations workers (25.7 percent); Accountants (20.4 percent); Engineers (10.6 percent); and Engineering and Scientific Technicians (8.1 per-cent).

An upward trend in the proportion of Service employees is noticeable on Table 1. They experienced the second highest growth rate (82 percent) in this Industry from 1970 to 1978, and are expected to increase another 48 percent by 1985. The Service worker's group is dominated by two occupations: Cleaning Service workers (78.9 percent) and Guards (18.5 percent). All other occupations in this group make up less then 3 percent of the total. Both of these occupations are expected to continue growing at faster pace than total Business Service Industry employment.

Even though the number of Craft workers and operatives have increased (43 percent and 37 percent respectively) from 1970 to 1978 in this Industry, their numbers increased at a slower pace than total employment in Business Services. As a result, they represent an increasingly smaller proportion of the total. This trend is expected to continue through 1985. However, one occupation, Data Processing Machine Repairers or Computer Service Technicians, has shown strong growth. Employment of these workers nearly doubled from 1970 to 1978 and it is expected to double again by 1985.

Table I

Occupational Staffing Patterns For the Business Services Industry2/

| Occupational Groups | Percent of Industry | | |
|---|---|---|---|
| | 1970 | 1978 | 1985 |
| Professional, Technical, & Kindred | 19.1 | 21.8 | 21.5 |
| Managers, Officals, & Proprietors | 13.0 | 13.8 | 13.7 |
| Sales | 4.1 | 3.9 | 3.9 |
| Clerical | 30.4 | 27.2 | 28.5 |
| Craft & Kindred | 6.2 | 5.4 | 4.8 |
| Operatives | 8.0 | 6.7 | 6.2 |
| Service | 18.1 | 20.2 | 20.4 |
| Laborers except Farm | 1.1 | 1.0 | 1.0 |
| Farm Laborers | 0.0 | 0.0 | 0.0 |

2/ Source: Minnesota Employment Outlook to 1985, Minnesota Department of Economic Security, Research and Statistical Services Office, January 1981.

# SUPPLY/DEMAND FOR SPECIFIC OCCUPATIONS, JANUARY 1983[1/]

By Sue Hamper

## MINNESOTA

Shortage Occupations: commissioned sales persons#, highly experienced systems analysts and computer programmers#, experienced engineers#, highly experienced and highly skilled clerical workers#

Surplus Occupations: sales clerks#, construction workers#, machine shop workers, truck drivers#, general laborers#

## CENTRAL MINNESOTA

Shortage Occupations: commissioned sales persons

Surplus Occupations: office clerks#, construction trades#, welders#, truck drivers, factory assemblers and laborers#

## MINNEAPOLIS-ST. PAUL

Shortage Occupations: commissioned sales persons#, highly experienced systems analysts and computer programmers#, highly experienced engineers (especially electrical)#, highly experienced and highly skilled clerical workers#

Surplus Occupations: construction workers#, machine shop workers#, welders, general laborers#

## NORTHEASTERN MINNESOTA

Shortage Occupations: none

Surplus Occupations: engineers#, teachers#, social workers#, drafters#, sales clerks#, office clerks#, bookkeepers#, secretaries#, typists#, waiters/waitresses#, cooks, maids, food production workers#, heavy equipment operators#, truck drivers#, auto mechanics#, carpenters#, painters#, bricklayers#, plumbers#, pipefitters#, millwrights#, welders, mining workers, laborers: construction, mining, and general#

## NORTHWESTERN MINNESOTA

Shortage Occupations: none

Surplus Occupations: most occupational categories have a surplus of workers

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1/ Shortage occupations are those that are difficult to fill or go unfilled due to the lack of qualified applicants. Surplus occupations are those in which the number of qualified applicants greatly exceeds the number of openings.

# This occupation has been listed as a shortage or surplus occupation in at least two out of the last three quarters of the Review.

## SOUTHERN MINNESOTA

Shortage Occupations: commissioned sales representatives#, health care occupations such as registered nurses, nurse aides, and live-in companions to home-bound persons; over-the-road truck drivers

Surplus Occupations: nearly all occupational categories have a surplus of applicants, with varying degrees of education and/or experience

Note: The Experienced Supply/Job Openings Demand table, a regular item in The Job Market Section, has not been included in this issue due to new fiscal year processing delays. The information will be included in future issues.

RESEARCH SUMMARIES (Continued from page 3)

from an increase in the educational attainment of the employed labor force, exclusive of overall growth or occupational shifts. In summary, the educational change factor shows that over 229,000 jobs which in 1970 were held by people with less than a high school education, were in 1978 held by people with a high school degree or some college education. The researchers refer to this figure as "educational spillover".

While there have been technological and other changes in job content between 1970 and 1978 which have necessitated additional educational requirements, it is the contention of the researchers that many of the new educational requirements have been initiated by employers in response to an oversupply of labor. In response to gradually increasing employer requirements and in the face of greater competition for available "good" jobs, individuals find education to be a necessary defensive investment because it raises an individual's income above what it would be if others acquire an education and he or she does not. Although the supply of labor responds to demand in the labor market, as witnessed by the number of teachers being trained now versus a decade ago, the response time is often delayed. More interestingly, it appears that students are much more likely to change their field of study in response to labor market conditions than to change their decisions about whether or not to attend college. The Bureau of Labor Statistics in their report, "The Job Outlook for College Graduates through 1990", predicts that nationally between 1978 and 1990 about 1 graduate in 4 will probably have to enter a nontraditional occupation. The New York researchers have developed a methodology which States can utilize in their labor market information program to project supply/demand situation for their State. This, combined with projections of demand for specific occupations can be a useful planning tool for the educational system as well as students.

# Feature Article

## 1983 ECONOMIC OUTLOOK

By R. Pinola*

### I. Introduction

Most forecasts (ours included) of economic activity for 1982 missed the mark by a substantial margin. While we, along with other forecasters, expected a modest turnaround to begin by mid-year, the economy continued to deteriorate into the fourth quarter. About the only good news for 1982 was the reduction in the rate of inflation from an annual average increase of 10.4 per cent in 1981 to 6.1 percent in 1982 for the U. S. Consumer Price Index.1/ Although the prime rate began to tumble after mid-year, the reduction went primarily into refinancing of existing short-term debt. Moderation in home mortgage rates brought some rejuvenation in residential construction in the fourth quarter, but overall construction remained in the doldrums. Meanwhile, manufacturers capacity utilization rates and the Federal Reserve Board's index of industrial production continued to slide downward and both total and nonagricultural wage and salary employment failed to show improvement.

As in previous recessions, consumer spending remained weak and, despite falling interest rates and various forms of rebates on large ticket items, consumers showed little inclination to spend. This, no doubt, was due to a combination of high sticker prices, weak growth in disposable income, and uncertainty over future employment and earnings. In addition, the Nation faced festering structural problems that will require an extended period of adjustment, making any recovery tenuous.

### II. Some Unresolved Issues and Problems

As we noted a year ago, one of the problems of a market economy is that in the real world, as distinct from the theoretical competitive model, adjustments to shocks or economic dislocations are not automatic or quickly made. In contrast to the assumptions of perfect knowledge, complete mobility of resources, and flexible wages and prices of the competitive model, the real world is characterized by imperfect knowledge, immobility of resources, inflexible wages and prices, and a host of contrived schemes that impede adjustment.2/ In an attempt to shelter ourselves from the harsh adjustments of the market and provide painless remedies to economic dislocation, we have devised and relied on various elixirs to promote stable employment and restore prosperity. Limited success in the use of these elixirs has often obscured our vision and allowed many structural problems to go untended, causing more pronounced shocks or dislocations at a later date.

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1/ For the Minneapolis-St. Paul SMSA, the CPI rose by 10.0 percent in 1982 compared to 12.3 percent in 1981.

2/ For example, tariffs, subsidies, preferential taxation, and a panoply of measures to protect or promote some form of activity.

*This article was prepared in the first week of February, 1983 by R. Pinola, Director Research and Statistical Services Office of the Minnesota Department of Economic Security.

The two primary elixirs that have become part of our bag of macro-economic prescriptions are fiscal and monetary policy. The notion that they can be an effective antidote to whatever ails the patient took the form of accepted folklore in the late 1960s and early 1970s. Even President Nixon's conversion to the new orthodoxy was widely heralded in the press when he ostensibly discovered Keynesian economics. In recent years, however, fiscal and monetary policy has been subjected to revisionist thinking. No longer are Federal deficits and monetary ease considered the sine qua non for economy recovery, nor is neoclassical theory the dirty term only mentioned in Economics 101. Today, deficits are regarded as anathema; the cause of high interest rates, a deterrent to investment, and conducive to inflation and boom-bust cycles in economic activity. Monetary ease is similarly treated. In short, conventional wisdom now has us believing that Federal deficits and monetary ease are misplaced remedies for what ails the patient.

Admittedly, unrestricted deficit spending and monetary ease can and does produce inflationary pressures and obscures our vision of structural problems. We have noted this on many occasions in the past. However, it seems that reality and rationality should dictate our perspective rather than succumb to rhetoric however tantalizing it may be. Given manufacturing capacity utilization rates below 70 percent, an unemployment rate in double-digit figures, two million discouraged workers giving up job search, actual GNP below potential GNP by over 10 percent, and industrial production at its lowest level in the post-war period, it is hard to believe that most of the problem is structural and not demand deficiency. Moreover, it seems questionable to argue that the Federal deficit has: 1) crowded business out of the capital markets, 2) brought about a dearth of investment capital, 3) created undue demand pressures on scarce resources, 4) promoted high interest rates, and 5) slowed economic growth. More realistically, high interest rates in the 1980-82 period were primarily due to the restrictive monetary policy of the Federal Reserve, whereas the dearth of investment capital is hard to justify in the face of over $250 billions that found its way into money market funds to be massaged in every manner except investment in plant and equipment. As for demand pressures on scarce resources, it has been demand deficiency rather than demand pressures that the Nation has experienced for the past three years. Presently, we are faced with a gap between actual and potential GNP in excess of $180 billions in 1972 dollars and roughly $350 billions in current dollars.

For those who may be concerned about the potential bankruptcy of the Nation from Federal deficits, we suggest that it may develop more quickly from money market paper massaging and low output than high aggregate demand and high output spurred by deficits and monetary ease. Historically, low and negative productivity are linked with recessions and low output, whereas high and rapid increases in productivity are linked with recoveries and high output. As we have noted elsewhere, the single largest factor contributing to economic growth in industrial nations has been the ability to capture economies of scale through increases in output which provide cost and price reductions and an expansion in markets.3/

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3/ See our editorial comment in the Review of Labor and Economic Conditions, Vol. 8, No. 4, February 1981, Research and Statistical Services Office, Minnesota Department of Economic Security.

If deficit spending and monetary ease stimulate higher levels of output without concomitant increases in inflation, the real gains to the Nation will surely provide a defense against bankruptcy. It may be illuminating to observe that in the years 1942 through 1945 the Federal deficit was consistently in excess of 20 percent of GNP in each year, yet the Nation emerged from the war economically more healthy than before the war and enjoyed a budget surplus in 1946.4/

With substantial structual problems facing the Nation at a time when demand deficiency has been pernicious, the question can be raised as to whether special tax subsidy, tariff, and other preferential programs are to be preferred over faster growth for promoting adjustment to dislocations generated by structural change. Clearly, an economy in which alternative job opportunities are scarce or nonexistent due to demand deficiency will find it more difficult to address structural change. In summary, the new conventional wisdom may prove just as short-sighted as the old, in which case we may have unwittingly thrown out the baby with the bath water.

## III. Comparing Post-War Contractions and Expansions

In January 1980 we provided readers with data to show how economic contractions and expansions had affected selected key variables. At that time, we explained that judging the severity of economic recessions depended on which variable one chose and the method of measurement employed. Table 1. provides an updated version of the earlier tabulation to include data through the fourth quarter of 1982. We hasten to add that our measure of change is based on averaging out the particular time series estimates for the noted intervening weeks prior to, coincident with, and succeeding the onset of a contraction, and does not simply represent measuring change from peak to trough and trough to peak for National Bureau of Economic Research-designated business cycles. We feel that averaging out the intervening quarters may be more representative of conditions than a single month or quarter. This is particularly true when dealing with more than one variable whose individual peaks and troughs do not coincide with the NBER-designated peaks and troughs for the business cycle. Actually, there is no fully satisfactory method for measuring the severity of contractions or robustness of expansions and, consequently, individual judgement plays an important role in the choice of variables and methods.5/ Our purpose is to let each reader choose a particular variable or combination of variables and make their own evaluation based on the acknowledged limitations of the measurement technique. As such, the exercise may be both interesting and illuminating.

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4/ In 1982 the Federal deficit was approximately 5.0 percent of GNP.

5/ This caveat applies to methods that assign weights based on some presumed ordering of the importance of variables and differing time frames for phases of the cycle.

Table 1. - Percentage Change in Selected Variables in Economic Contractions and Expansions*

| Period | Percentage Change in Variables | | | | | | |
|---|---|---|---|---|---|---|---|
| | Real GNP (1972 $) | Capacity Utiliz. Rate | Disposable Income (1972 $) | Civilian Employ't | Unempl. | Size of GNP Gap** | Output Per Man-Hour*** |
| 1949 Recession | | | | | | | |
| Contraction | 0.6 | -10.8 | 0.2 | -1.2 | 59.6 | NA | 2.5 |
| Expansion | 8.7 | 12.2 | 7.7 | 2.2 | -9.5 | NA | 4.3 |
| 1954 Recession | | | | | | | |
| Contraction | -0.2 | -5.4 | 1.4 | -0.8 | 55.9 | 2.9 | 1.0 |
| Expansion | 3.2 | -1.2 | 3.8 | 0.3 | 18.0 | 1.0 | 3.5 |
| 1958 Recession | | | | | | | |
| Contraction | -1.1 | -12.3 | 0.5 | -1.4 | 60.1 | 7.2 | 1.7 |
| Expansion | 6.1 | 8.4 | 4.3 | 1.7 | -12.1 | 4.7 | 4.2 |
| 1961 Recession | | | | | | | |
| Contraction | 1.0 | -6.7 | 1.6 | 0.8 | 22.5 | 7.5 | 0.4 |
| Expansion | 5.7 | 5.2 | 3.9 | 9.6 | -5.9 | 5.2 | 4.4 |
| 1970 Recession | | | | | | | |
| Contraction | -0.3 | -1.3 | 4.1 | 0.9 | 44.4 | 2.8 | -0.3 |
| Expansion | 3.0 | 6.4 | 3.5 | 0.6 | 22.2 | 3.8 | 2.7 |
| 1974 Recession | | | | | | | |
| Contraction | -1.9 | -6.5 | -0.5 | 2.0 | 27.6 | 5.0 | -1.7 |
| Expansion | 2.3 | -6.1 | 4.3 | 0.0 | 36.7 | 6.8 | 2.0 |
| 1980 Recession | | | | | | | |
| Contraction | -0.2 | -5.7 | -0.1 | 0.6 | 18.0 | 4.2 | -1.2 |
| Expansion | 1.1 | -2.4 | 1.8 | 0.6 | 11.2 | 5.6 | 1.3 |
| 1982 Recession | | | | | | | |
| Contraction (July 1981 thru Dec. and 4th Qtr. 1982) | -1.0 | -10.2 | 2.0 | -0.4 | 29.0 | 10.6 | 1.1 |

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* All Percentage changes except those for the 1974 and 1982 recessions are based on use of 4-quarter averages prior to the contraction, coincident with the contraction, and for the succeeding recovery. For the 1974 recession a 5-quarter period was used. For the 1981-2 recession a 6-quarter period was used.

** All figures in this column represent the shortfall in actual compared to potential GNP expressed as a percentage of actual GNP.

*** Output per man-hour is for the nonfarm business sector.

## IV. The Forecast for 1983

### A. Forecast Methodology

This year we departed slightly from previous years in estimating changes in aggregate demand (GNP). As in other years, we estimated the probable changes in consumption, investment, and government expenditures by taking into account how key policy variables might impact on each component of GNP and what changes could be deduced from historical experience. We then compared the estimates of GNP based on this method with one derived by use of a particular form of a vector autoregression model formulated by Rao Aiyagari for predicting Minnesota wage and salary employment and GNP.6/ Based on this comparison we made some adjustments that seemed warranted by current conditions.

The forecasts of labor force, productivity, and hours worked were developed on the basis of historical data and trends in labor force participation rates for different age-sex cohorts of the population. The U.S. employment estimates were then derived by taking into account the growth in real GNP, productivity per man-hour, and hours worked. Finally, the unemployment estimate was derived by subtracting estimated employment from the forecast labor force.

For Minnesota employment, historical relationships between GNP and Minnesota employment, U.S. and Minnesota nonagricultural wage and salary employment, and U.S. and Minnesota manufacturing employment were used to make a preliminary analysis of expected employment changes. These were then considered in the context of special conditions in the agricultural, mining, and construction sectors, and the probable defense impact on the manufacturing sector. Labor force growth was assumed to track in line with the average for recovery years in the 1970s adjusted for declining birth rates in the 1960s and less than robust employment growth than in 1972-73 and 1976-78.

### B. Assumptions

#### 1. Fiscal Policy, Monetary Policy, and Inflation

Federal budget projections made in February 1982 called for a deficit of $91.5 billions in Fiscal Year 1983. By April, the projections were revised to $101.9 billions, and as the calendar year drew to a close it was conceded that the FY 1983 deficit would approach $200 billions on a National Income Accounts basis.

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6/ Charles Cline of our research staff has been preparing quarter-ahead forecasts of GNP and Minnesota wage and salary employment using the Aiyagari model. The Aiyagari model generated a 4.5 percent real GNP forecast for 1983. We felt this to be too high since our independently derived forecast was closer to 3.2 percent. We subsequently adjusted our forecast to 3.5 percent assuming interest rate moderation would continue.

Despite the size of deficit we expect interest rates to remain near their current levels for the following reasons: 1) considerable excess capacity in the system precludes undue demand pressures; 2) a strong dollar in foreign exchange markets obviates against the need for artificially high rates to stem the flight of short-term capital; 3) no sudden or mad rush to finance new plant and equipment expenditures; and 4) a more accommodating monetary policy by the Federal Reserve. We also expect inflationary pressures to be contained by productivity increases that generally accompany recovery years, the existence of surpluses in agricultural commodities, petroleum stocks, and many raw materials, and the pressures of competition from foreign finished goods.

2. Disposable Income and Spending

An expansion in defense spending, together with interest-induced improvements in residential housing and durable goods demand, can be expected to trigger increases in payroll employment that will extend into the transportation, real estate, and services sectors. Meanwhile, interest income and transfer payments should continue to track with gains in these components in 1982. Not only is the number of Social Security beneficiaries expanding, but new beneficiaries bring higher earnings records and benefit payments into the system. In addition, the proposed delay in Social Security COLA adjustments seems destined to be postponed to 1984. Disposable personal income will also get a modest shot from the scheduled July 1 cut in Federal withholding taxes. These increases in income will provide the basis for increases in consumer spending unless savings rates rise. Actually, we expect the savings rate to fall as a result of the moderation in interest rates and lower returns on money market investments.

3. Plant, Equipment, and Inventory Investment

In most economic recoveries, the rate of increase in investment expenditures has outpaced the rate at which consumer outlays have grown. In the vernacular of economic theory, this is called the accelerator effect as distinct from the multiplier effect that derives from an increase in income and consumer spending of that income. Given the amount of excess capacity in the economy, we do not anticipate new plant and equipment expenditures to grow at the pace evidenced in previous recovery years.

We have already indicated that residential construction should show sizeable improvement. We also expect some gains in commercial construction and highway maintenance activity, the latter a foregone necessity if the Nation's transportation system is to remain viable. This leaves a large gap to be filled by inventory accumulation if output and income are to grow at a brisk pace. However, we do not expect inventory growth to match that of earlier recovery years for two reasons. First, better control measures have been adopted by industry in the face of high carrying costs and a shortage of working capital, and second, the moderation in inflation provides less inducement to maintain large inventories in anticipation of inflation-generated profits.

4. Government Outlays for Goods and Services

Government spending on goods and services comprises roughly 19 percent of GNP, with Federal outlays accounting for 45 percent of the government component. While Federal spending on goods and services is scheduled to rise faster than in 1982, state and local governments are faced with budget problems that limit their spending. Overall, price-adjusted government outlays are likely to grow more slowly than either consumer spending or investment expenditures, but faster than in 1982 because of increased defense outlays.

5. Labor Force, Productivity, and Hours Worked

As economic conditions improve, the labor force usually grows faster in response to expanding job opportunities. This prevents unemployment rates from fully reflecting the gains in employment. For example, in the recovery year of 1972, despite a robust 3.3 percent increase in employment, the unemployment rate fell by only 0.3 percent (from 5.9 percent in 1981 to 5.6 percent in 1972). A somewhat similar condition occurred in the recovery years of 1976 and 1977. Inasmuch as we do not expect the 1983 recovery to match that of 1972, or 1976-7, we feel that the expansion in the labor force will be no more than 2.0 percent.

As we noted earlier, output per man-hour generally rises in recovery years, as do hours worked per week. In 1981, output per man-hour in the private sector rose by 1.8 percent. For the economy as a whole, however, the gain would be smaller because most of the public sector work force is employed in the provision of services where productivity increases are more difficult to achieve than in goods production. For 1983, overall output per man-hour is likely to range between 1.0 and 1.5 percent. Meanwhile, hours worked per week should increase in the goods producing sector as employers employ overtime before hiring new workers as output expands. Since much of the overtime normally occurs in the goods producing sector for production workers, the net effect on total hours worked is considerably smaller.

C. Forecast of U.S. Gross National Product, Employment, and Unemployment

Tables 2 and 3, which appear on pages 16 and 17, provide forecasts of disposable income, aggregate demand (GNP), employment, and unemployment. Understandably the estimates are subject to error as it is impossible to ascertain the precise effect that key policy variables will have on consumer and business behavior, or the speed with which the market adjusts to them. Moreover, policy itself and shocks to the system cannot be nicely predicted. We believe, however, the available data indicates an economic recovery in 1983, albeit not as fast as some would predict, but probably faster than envisaged three months ago.

D. The Minnesota Forecast

Whether measured in terms of nonfarm employment or payrolls, the Minnesota economy exhibited less cyclical sensitivity than the Nation over the first six post-World War II business cycles. However, the 1980-81 cycle reversed

the trend. It is too early to determine whether the 1982 downturn and subsequent recovery will continue this reversal, but on the downswing Minnesota nonfarm payrolls and employment will certainly outpace the national average.

Using studies done by Friedenberg and Bretzfelder7/ for three post-war time frames, we can make comparisons of the magnitude of cyclical swings in nonfarm payrolls for the Nation and the 50 states. For the time frames IV Qtr 1948-IV Qtr 1973 and IV Qtr 1973-IV 1979, Minnesota ranked 30th and 28th, respectively, among all the states in the magnitude of cyclical swings in nonfarm payrolls. For the period I Qtr 1980-III Qtr 1981, Minnesota ranked 8th among all states in the magnitude of nonfarm payrolls. Whereas Minnesota's nonfarm payroll swings for the two earlier periods were 6.1 and 2.8 percent compared to the U.S. swings of 7.8 and 4.2 percent, in the more recent period the Minnesota swing was 13.9 percent compared to 8.5 percent for the Nation. The recent reversal between Minnesota and the U.S. in the magnitude of cyclical swings in nonfarm payrolls is primarily due to changes in cyclical swings of the Construction and Manufacturing industries which in the earlier periods were consistently smaller for Minnesota.

Looking at nonfarm employment, the same pattern of swings emerges, except that we were able to examine the swings in more detail. It also permitted us to more adequately "explain" U.S. - Minnesota experience for the time frames used by Friedenberg and Bretzfelder. Excluding the 1982 downturn, and excepting for the 1949 recession and 1976-79 recovery, Minnesota's nonfarm payroll employment declined more slowly during contractions and rose more slowly during expansions; hence having a moderating effect on swings in payroll employment for the State. We already know that payroll employment fell more sharply in Minnesota than the Nation in 1982, but whether it will show a faster or slower rate of increase in the full recovery period cannot be predicted.

One fact that stands out with respect to the current recession is that Construction and Manufacturing payroll employment in Minnesota fell by more in 1982 than in any other recessionary year, excluding 1975 for Manufacturing, since 1948. Further deterioration in the State's economy in 1982 was contributed by the Agriculture and Mining sectors. While some modest improvement is expected in both Mining and Agriculture in 1983, recovery in payroll employment will primarily hinge on the Construction and Manufacturing sectors.8/

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7/ See "Sensitivity of Regional and State Nonfarm Wages and Salaries to National Business Cycles, 1948-1979", May 1980 Issue of the Survey of Current Business. An update through III Qtr 1981 appeared in a news release by the U.S. Department of Commerce on February 7, 1982.

8/ A strong dollar and various forms of subsidy and tariff protections by our trading partners may continue to inhibit any substantial improvement in agricultural exports. Sales to Third World nations, who are short on foreign exchange and are deeply in debt, rules out any significant gains in this market. Any significant improvement in steel and iron mining activity will largely depend on what happens in the auto industry and whether a steel strike can be averted in 1983. A strike in the steel industry would assuredly lead domestic users to seek long-term commitments from foreign producers.

Despite the relatively low correlations that we have found between changes in GNP and changes in Minnesota payroll employment, our 1983 forecast for Minnesota labor market conditions is largely linked to national economic conditions. As with the Nation, the moderation in interest rates is expected to generate increased residential and commercial construction activity. Also, since our Manufacturing sector is more closely linked to regional and national markets, we feel it will show steady improvement in 1983. In addition, some of our Minnesota manufacturing industries (Ordnance, Nonelectrical Machinery, and Electrical Machinery) have fairly strong linkages with defense expenditures, which should benefit these industries.

Based on the foregoing analysis, Table 4 provides a summary of forecast labor market conditions for Minnesota. As with the Nation, unemployment rates are likely to recede only slowly due to an expansion in the labor force and less than robust employment growth.

Table 2. Forecast Changes in GNP and Components, 1983/1982

| Component | Estimated Percent Change |
|---|---|
| A. Income and Consumption | |
| 1. Disposable Income | 9.2 |
| 2. Consumption Effect of Change in Savings Rate | 0.2 |
| 3. Consumption Effect of Installment Credit | 0.3 |
| 4. Total Change in Personal Consumption | 9.7 |
| 5. Price-Adjusted Change in Personal Consumption | 3.9 |
| 6. Net Contribution to Change in GNP | 2.5 |
| B. Gross Private Domestic Investment (GPDI) | |
| 1. Nonresidential Fixed Investment | 7.5 |
| 2. Residential Fixed Investment | 17.5 |
| 3. Impact of Change in Business Inventories | 10.0 |
| 4. Change in GPDI | 9.0 |
| 5. Price-Adjusted Change in GPDI | 3.0 |
| 6. Net Contribution to Change in GNP | 0.5 |
| C. Government Purchases of Goods and Services | |
| 1. Federal | 12.0 |
| 2. State and Local | 6.0 |
| 3. Total Government Purchases | 8.4 |
| 4. Price-Adjusted Government Purchases | 2.4 |
| 5. Net Contribution to Change in GNP | 0.5 |
| D. Net Exports (Rough balance between Exports & Imports) | --- |
| E. 1983/82 Percentage Change in Real GNP | 3.5 |

Table . Changes in U.S. Labor Market Conditions

| Item | 1982 Average | Estimated Percent Change | Estimated 1983 Average |
|---|---|---|---|
| 1. Output Per Man-hour | --- | 1.2 | |
| 2. Hours Worked Per Week | --- | 0.3 | |
| 3. Civilian Labor Force | 110.1 mil. | 1.7 | 112.0 mil. |
| 4. Civilian Employment | 99.5 mil. | 2.0 | 101.5 mil. |
| 5. Unemployment | 10.7 mil. | -1.9 | 10.5 mil. |
| 6. Unemployment Rate | 9.7% | -3.1 | 9.4% |

Table 4. Forecast Labor Market Conditions for Minnesota

| Item | 1982 Average | Estimated Percent Change | 1983 Average |
|---|---|---|---|
| 1. Labor Force | 2,145 | 1.5 | 2,17? |
| 2. Employment | 1,982 | 2.1 | 2,024 |
| 3. Unemployment | 163 | -6.1 | 153 |
| 4. Unemployment Rate | 7.6% | -7.9 | 7.0% |

EDITORIAL COMMENT (Continued from page 1)

"Mr. Holmes, I see your point, but tell me, will it not take time for all the adjustments to take place? What happens in the meantime?"

"Obviously, Dr. Watson, the adjustment will be painful and take time, but let us not cloud the issue, the BLS has already done that with their seven versions of unemployment. Moreover, recall that our good friend, Lord Keynes, suggested that in the long run we are all dead and not to worry."

"But, Mr. Holmes, is involuntary unemployment ever possible?"

"Why, of course, Dr. Watson, when you have no job at a zero wage rate, but such a condition is highly unlikely. Now, if you'll excuse me, I have an appointment with the Social Security Administration. Seems they have a cash-flow problem they can't solve."

# Brief Analysis Of Economic Conditions

## THE NATIONAL AND STATE ECONOMIES AT YEAR'S END

By Ben Boyle

### NATION

After continuing to decline through the fourth quarter of 1982, the Nation's economy showed signs of a recovery in January as most indicators of economic activity moved in favorable directions. A number of economists believe the recession ended in December. However, the National Bureau of Economic Research, the official designator of peaks and troughs of recessions, may not announce the date of the trough for several months.

Perhaps the best evidence of an improving economy was a strong January rise (0.9 percent) in industrial production. The production gain in January was the largest since a 1.6 percent increase last February and followed a revised rise of 0.1 percent in December. Also encouraging was a record 35.9 percent jump in housing starts which lifted housing starts to their highest level since September 1979. Economists, however, noted that the large rise was partly due to a combination of unusually mild weather, lower interest rates, and increased home sales. Smaller gains were reported for retail sales and factory utilization. Although there was a significant decline in the unemployment rate and a relatively large gain in nonfarm payroll employment, both of these improvements may have been overstated because of problems in the seasonal adjustment process. Nevertheless, the increases in manufacturing employment and hours worked were genuine positive signs.

Most economists expect a modest recovery in 1983. Forecasts thus far range from the Administration's 3.1 percent real growth to the 3.8 percent real growth forecast by the National Association of Business Economists. The forecast by this office is given in the feature article of this issue.

### STATE

After fifteen months of decline, the Minnesota economy appeared to stabilize in January. Although the unemployment rate rose to a very high level in January, total employment did not fall as much as it usually does between December and January. Also, the preliminary estimate of nonagricultural wage and salary employment showed a modest increase from December.

The State's seasonally unadjusted unemployment rate rose to 10.4 percent in January from a downward revised 8.7 percent in December. The January rate compared with a fourth quarter average of 8.0 percent and a 1982 annual average of 7.8 percent. Statistical adjustments that are made at the end of each year may have caused the January rate to have been somewhat overstated. Total employment (also unadjusted) fell 2.7 percent in January which was slightly less than the normal 3.0 percent drop between December and January. Also, after declining for 13 out of the past 15 months, seasonally adjusted nonfarm payroll employment rose 4,300 or 0.3 percent in January. However, these establishment figures are preliminary and may change in February.

Other data for the fourth quarter and January suggested that some segments of the economy may be improving. Building permits for private housing rose 23 percent in the fourth quarter and were 30 percent above the fourth quarter of 1981. Also, retail sales showed more strength in the fourth quarter than earlier in the year. Although average weekly initial claims rose in January, the January figure was somewhat below the average of the fourth quarter and well under the averages of the second and third quarters.

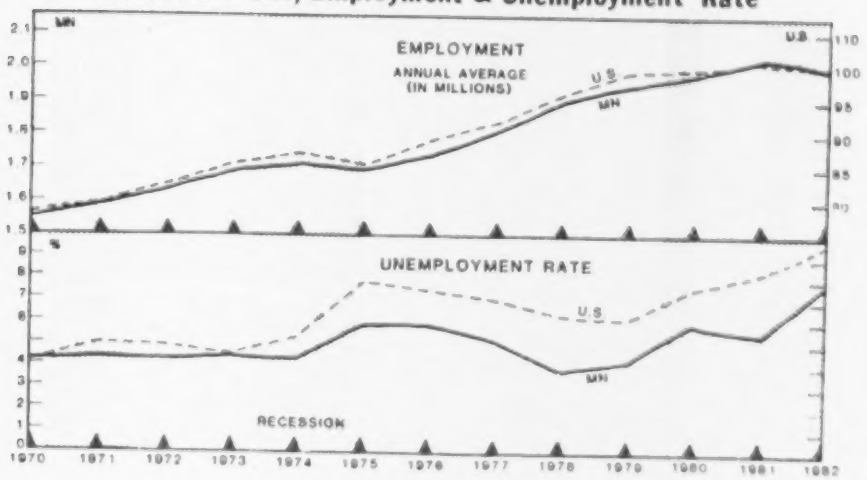
# Labor Force Statistics

| Labor Force Estimates | MINNESOTA (Numbers in '000's) | | | UNITED STATES (Numbers in '000,000's) | | |
|---|---|---|---|---|---|---|
| | January 1983 | Change From Last Mo. | Change From Year Ago | January 1983 | Change From Last Mo. | Change From Year Ago |
| Civilian Labor Force | 2100.7 | -28.3 | 7.2 | 109.8 | -0.6 | 1.8 |
| Employed | 1882.8 | -60.5 | -54.8 | 97.3 | -1.5 | -0.5 |
| Unemployed | 217.9 | 32.2 | 62.0 | 12.5 | 0.9 | 2.3 |
| Unemployment Rate | | | | | | |
| Actual | 10.4 | 1.7 | 3.0 | 11.4 | 0.9 | 2.0 |
| Seasonally Adjusted | n.a | n.a | n.a | 10.4 | -0.4 | 1.8 |

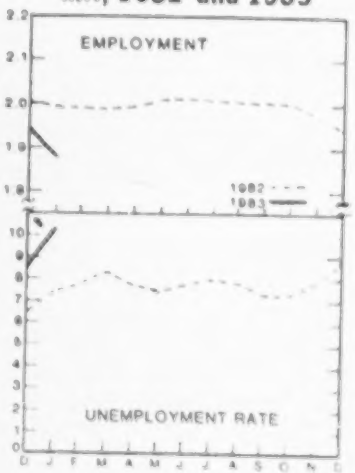
## Historical Labor Force Series

| Year | Minnesota (Annual Average in '000's) | | | | United States (Annual Average in '000,000's) | | | |
|---|---|---|---|---|---|---|---|---|
| | Labor Force | Employment | Unemployment Number | Unemployment Rate | Labor Force | Employment | Unemployment Number | Unemployment Rate |
| 1970 | 1625.0 | 1557.0 | 68.0 | 4.2 | 82.8 | 78.7 | 4.1 | 4.9 |
| 1971 | 1665.0 | 1593.0 | 73.0 | 4.4 | 84.4 | 79.4 | 5.0 | 5.9 |
| 1972 | 1709.0 | 1635.0 | 73.0 | 4.3 | 87.0 | 82.2 | 4.9 | 5.6 |
| 1973 | 1774.0 | 1694.0 | 80.0 | 4.5 | 89.4 | 85.1 | 4.4 | 4.9 |
| 1974 | 1779.0 | 1701.0 | 77.0 | 4.3 | 91.9 | 86.8 | 5.2 | 5.6 |
| 1975 | 1804.0 | 1697.0 | 107.0 | 5.9 | 93.8 | 85.8 | 7.9 | 8.5 |
| 1976 | 1849.0 | 1739.0 | 109.0 | 5.9 | 96.2 | 88.8 | 7.4 | 7.7 |
| 1977 | 1907.0 | 1809.0 | 97.0 | 5.1 | 99.0 | 92.0 | 7.0 | 7.1 |
| 1978 | 1979.0 | 1903.0 | 75.0 | 3.8 | 102.3 | 96.0 | 6.2 | 6.1 |
| 1979 | 2038.0 | 1953.0 | 85.0 | 4.2 | 105.0 | 98.8 | 6.1 | 5.8 |
| 1980 | 2108.0 | 1982.0 | 125.0 | 5.9 | 106.9 | 99.3 | 7.6 | 7.1 |
| 1981 | 2143.0 | 2024.0 | 118.0 | 5.5 | 108.7 | 100.4 | 8.3 | 7.6 |

### MN and the U.S., Employment & Unemployment Rate




### MN, 1982 and 1983



# Labor Market Conditions

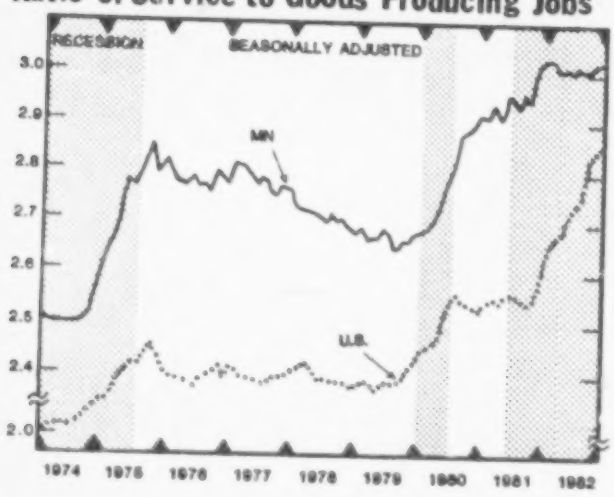
The table and graphs in this section describe the behavior of the market for labor services in terms of its quantity, price, and supply. The quantity of labor services, which is the number of employed persons, is classified by industry. The price of labor services is roughly indicated by the industry wage. Unemployment estimates provide a qualified measure of excess labor supply. The degree to which persons participate in the labor market and the effectiveness of the market in utilizing labor services are indicated by Labor Force Estimates and by Other Rates of Labor Utilization.

| Labor Force And Establishment Data | MINNESOTA (Numbers in '000's) IV Qtr. 1982 | Percent Change From Last Qtr | Percent Change From Year Ago | UNITED STATES (Numbers in '000's) IV Qtr. 1982 | Percent Change From Last Qtr | Percent Change From Year Ago |
|---|---|---|---|---|---|---|
| LABOR FORCE ESTIMATES | | | | | | |
| Total Labor Force | 2149.6 | -1.3 | 0.5 | 110700 | -0.9 | 1.6 |
| Employment | 1966.6 | -2.6 | -2.8 | 99351 | -1.5 | -1.0 |
| Nonagriculatural | n.a | n.a | n.a | 96021 | -1.0 | -1.1 |
| Agriculatural | n.a | n.a | n.a | 3330 | -13.5 | 2.6 |
| Unemployment | 183.0 | 15.4 | 57.2 | 11349 | 4.9 | 31.4 |
| By Reason - New Reentrants-%* | n.a | n.a | n.a | 31.7 | -5.4 | -12.2 |
| By Reason - Quit-%* | n.a | n.a | n.a | 6.8 | -6.8 | -34.0 |
| By Reason - Lost-%* | n.a | n.a | n.a | 61.5 | 3.9 | 14.7 |
| Unemployment Rates | | | | | | |
| Actual | 8.5 | 16.4 | 57.4 | 10.3 | 6.2 | 30.4 |
| Seasonally Adjusted | n.a | n.a | n.a | 10.7 | 7.0 | 28.9 |
| OTHER RATES OF LABOR UTILIZATION | | | | | | |
| Participation Rt (Labor Force/Population 16+) | n.a | n.a | n.a | 64.1 | 0.0 | 0.5 |
| Full Employment Deficit - Percent of Workers1/ | 4.5 | 3.3[a] | 1.4[a] | 6.3 | 5.7[a] | 3.9[a] |
| Manpower Utilization Rate2/ | 80.4 | 0.3 | -2.3 | 78.4 | -1.6 | -4.0 |
| NONAGRICULTURAL WAGE AND SALARIED POSITIONS | | | | | | |
| Employment* | 1685.6 | -0.8 | -4.0 | 88687 | -0.8 | -2.5 |
| Mining | 6.4 | 4.9 | -57.9 | 1048 | -3.6 | -12.7 |
| Construction | 59.5 | -4.3 | -11.2 | 3841 | -1.6 | -5.5 |
| Manufacturing | 334.9 | -2.8 | -6.4 | 18214 | -2.5 | -8.4 |
| Durables | 198.2 | -3.4 | -7.6 | 10585 | -3.9 | -11.0 |
| Nondurables | 136.7 | -1.9 | -4.5 | 7629 | -0.6 | -4.6 |
| Trans., Comm., & Public Utilities | 92.3 | -0.4 | -5.2 | 4993 | -0.8 | -3.0 |
| Trade | 424.0 | -1.1 | -3.2 | 20376 | -0.9 | -1.1 |
| Fin., Ins., & Real Estate | 97.7 | 0.2 | -0.4 | 5365 | 0.1 | 0.7 |
| Services | 389.0 | -0.2 | 0.7 | 19114 | 0.3 | 1.6 |
| Government | 281.8 | 1.7 | -5.0 | 15736 | 0.3 | -1.1 |
| Average Weekly Hours* | | | | | | |
| Mining | 38.2 | 0.0 | 11.7 | 41.9 | -0.9 | -6.1 |
| Construction | 34.8 | -4.4 | -3.9 | 36.6 | -2.4 | -1.9 |
| Manufacturing | 39.1 | 0.5 | -0.5 | 38.9 | -0.3 | -1.0 |
| Durables | 39.7 | 0.3 | -0.5 | 39.1 | -0.5 | -1.5 |
| Nondurables | 38.3 | 0.5 | -0.8 | 38.5 | -0.3 | -0.5 |
| Trans., Comm., & Public Utilities | 38.1 | 0.5 | -2.3 | 38.8 | -0.8 | -1.0 |
| Trade | 29.7 | 1.4 | -0.3 | 31.8 | -0.6 | -0.6 |
| Fin., Ins., & Real Estate | n.a | n.a | n.a | 36.1 | -0.3 | -0.3 |
| Services | n.a | n.a | n.a | 32.5 | -0.6 | -0.3 |
| Average Hourly Wage | | | | | | |
| Mining | 12.97 | 3.5 | -0.3 | 11.04 | 0.7 | 6.7 |
| Construction | 14.25 | -0.7 | 5.6 | 11.78 | 1.6 | 5.2 |
| Manufacturing | 9.30 | 2.0 | 7.5 | 8.62 | 0.8 | 5.0 |
| Durables | 9.37 | 1.6 | 8.3 | 9.18 | 0.7 | 4.6 |
| Nondurables | 9.21 | 2.4 | 6.5 | 7.88 | 1.3 | 6.8 |
| Trans., Comm., & Public Utilities | 10.56 | 1.3 | 6.7 | 10.54 | 1.4 | 4.8 |
| Trade | 7.02 | 1.2 | 6.2 | 6.30 | 1.1 | 4.7 |
| Fin., Ins., & Real Estate | n.a | n.a | n.a | 7.02 | 2.5 | 8.5 |
| Services | n.a | n.a | n.a | 7.08 | 2.3 | 6.6 |
| Estimates of Labor Turnover (Mfg. Only) | Estimates of Labor Turnover have been discontinued as of January 1, 1982. | | | | | |

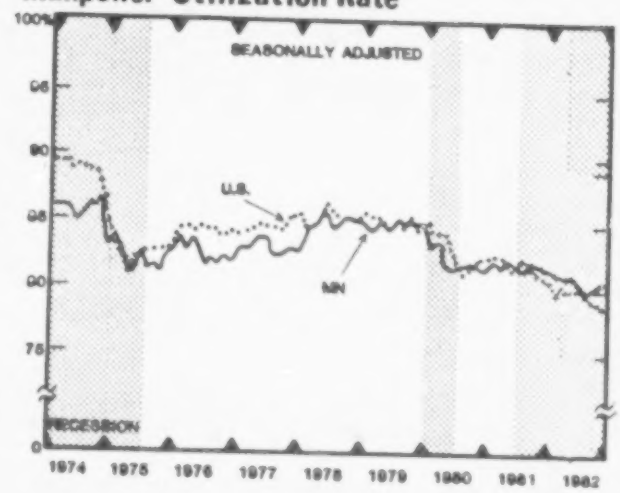
a/ Values are numerical values, not percent changes.

# Labor Market Conditions

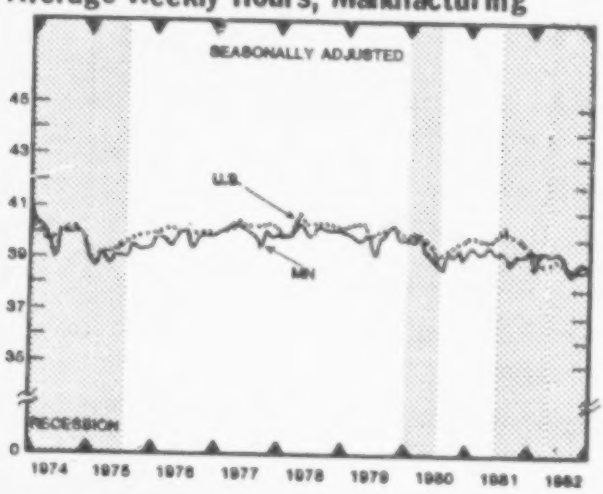
## Ratio of Service to Goods Producing Jobs



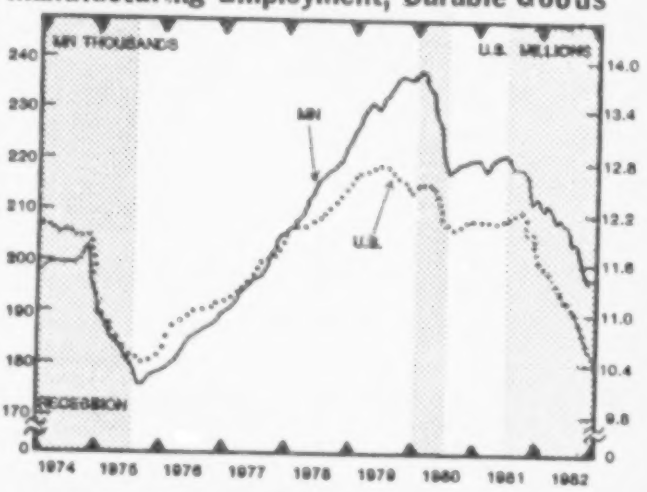

## Manpower Utilization Rate



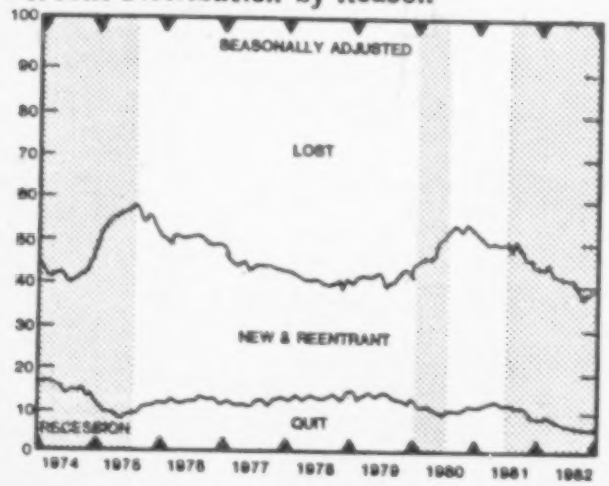

## Average Weekly Hours, Manufacturing




## Manufacturing Employment, Durable Goods




## U.S. Unemployment: Percent Distribution by Reason




## MN Weekly Initial Claims & Handbook Unemployment Rate[1]

# Labor Market Conditions

The Table below provides data on persons who file claims for unemployment compensation in Minnesota. Only those claiming benefits from the regular State program are represented, since data on the characteristics of Federal employees and veterans are not available, and data on those receiving benefits from extended programs is reported only when those programs are in effect. If those receiving extended benefits were included they would distort the numerical comparisons over time, but would not substantially change the percentage distributions other than to increase the proportion of long-term unemployed.

| Persons Claiming Benefits | Fourth Quarter 1982 | | | January 1983 | | | Percent Long Term |
|---|---|---|---|---|---|---|---|
| | Number | Percent Change From | | Number | Percent Change From | | |
| | | Last Qtr. | Year Ago | | Month Ago | Year Ago | |
| By Age & Sex | | | | | | | |
| Male | 44843 | 12.1 | 42.7 | 63694 | 18.2 | 10.3 | 16.3 |
| Under 45 | 34960 | 11.4 | 36.1 | 49670 | 18.2 | 7.2 | 15.6 |
| Under 25 | 9285 | 15.6 | 0.9 | 14126 | 20.5 | -14.5 | 13.5 |
| 25-34 | 17245 | 9.2 | 49.5 | 23839 | 16.9 | 16.1 | 16.1 |
| 35-44 | 8430 | 11.5 | 70.3 | 11705 | 18.4 | 26.1 | 17.1 |
| 45 and Over | 9883 | 14.5 | 72.7 | 14024 | 18.0 | 23.0 | 18.6 |
| 45-54 | 5650 | 16.3 | 75.1 | 8023 | 18.7 | 21.1 | 18.1 |
| 55 and Over | 4233 | 12.1 | 69.6 | 6001 | 17.0 | 25.8 | 19.2 |
| Female | 18074 | -11.9 | 34.4 | 20805 | 12.5 | 19.1 | 24.2 |
| Under 45 | 13683 | -11.9 | 34.3 | 15316 | 11.4 | 17.4 | 24.5 |
| Under 25 | 3834 | -5.3 | 22.7 | 4596 | 16.7 | 7.4 | 22.1 |
| 25-34 | 6045 | -12.7 | 30.8 | 6604 | 10.1 | 20.5 | 25.5 |
| 35-44 | 3804 | -16.8 | 40.6 | 4116 | 8.0 | 25.2 | 25.6 |
| 45 and Over | 4391 | -11.8 | 34.7 | 5489 | 15.7 | 24.0 | 23.4 |
| 45-54 | 2512 | -13.3 | 32.1 | 3006 | 14.4 | 20.6 | 24.1 |
| 55 and Over | 1879 | -9.8 | 38.3 | 2483 | 17.2 | 28.5 | 22.6 |
| By Industry | 62917 | 3.9 | 40.2 | 84499 | 16.7 | 12.4 | 18.2 |
| Ag., For., Fish. | 1062 | 121.7 | 22.1 | 2286 | 28.6 | 15.6 | 5.4 |
| Mining | 6882 | -13.0 | 149.4 | 5045 | -27.3 | 59.5 | 34.8 |
| Construction | 9829 | 64.2 | 15.8 | 21290 | 37.0 | -5.7 | 6.2 |
| Manufacturing | 20200 | 2.9 | 49.3 | 25075 | 15.1 | 15.2 | 21.5 |
| Pub. Utilities | 2109 | -11.9 | 20.9 | 3366 | 36.2 | 5.6 | 13.5 |
| Wholesale Trade | 4089 | 8.1 | 56.5 | 5429 | 15.4 | 33.3 | 22.2 |
| Retail Trade | 6067 | 1.4 | 28.5 | 8215 | 26.2 | 20.6 | 22.1 |
| Fin., Ins., Real Est. | 1287 | -3.2 | 28.3 | 1500 | 16.6 | 28.9 | 29.0 |
| Services | 9560 | -18.6 | 29.9 | 9860 | 6.6 | 20.7 | 26.6 |
| Public Admin. | 1130 | 49.7 | -17.2 | 1573 | 12.4 | -11.7 | 15.1 |
| Inf. Not Available | 652 | 30.4 | 84.7 | 860 | 19.3 | 62.9 | 4.4 |
| By Occupation | 62917 | 3.9 | 40.2 | 84499 | 16.7 | 12.4 | 18.2 |
| Prof., Tech., Mgr. | 7997 | -19.0 | 60.0 | 7791 | 4.9 | 44.0 | 32.7 |
| Clerical | 6320 | -7.2 | 34.0 | 6702 | 11.9 | 24.6 | 31.6 |
| Sales | 1988 | -5.2 | 34.1 | 2456 | 22.2 | 24.1 | 26.8 |
| Services | 4211 | 1.7 | 25.8 | 5156 | 14.6 | 28.5 | 22.7 |
| Farm., For., Fish. | 946 | 193.8 | 11.2 | 1897 | 20.8 | 9.5 | 4.3 |
| Processing | 2289 | -17.1 | 68.8 | 3604 | 33.5 | 1.9 | 9.9 |
| Machine Trade | 5127 | 2.3 | 61.3 | 5751 | 8.7 | 26.8 | 25.7 |
| Benchwork | 7257 | 4.4 | 42.9 | 8149 | 3.7 | 12.4 | 22.3 |
| Structural Work | 12905 | 47.7 | 17.0 | 25613 | 38.5 | -4.2 | 7.6 |
| Misc. | 13684 | 0.2 | 58.1 | 17133 | 4.8 | 18.7 | 18.4 |
| Inf. Not Available | 193 | 4.9 | 16.3 | 247 | 28.0 | 26.7 | 23.1 |
| By Duration | 62917 | 3.9 | 40.2 | 84499 | 16.7 | 12.4 | |
| 0-14 Weeks | 45167 | -1.3 | 17.5 | 69101 | 23.2 | 3.5 | |
| 15+ Weeks (Long-Term) | 17750 | 20.2 | 176.3 | 15398 | -5.6 | 82.5 | |

# Labor Market Conditions

## Minnesota Nonagricultural Wage & Salary Employment, Hours, and Earnings

| INDUSTRY | EMPLOYMENT 1/ (thousands) | | | PER CENT CHANGE FROM | | PRODUCTION WORKERS' HOURS & EARNINGS | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Average Weekly Earnings | | Average Hourly Earnings | | Average Weekly Hours | |
| | Jan. 1983 | Dec. 1982 | Jan. 1982 | Dec. 1982 | Jan. 1982 | Jan. 1983 | Dec. 1982 | Jan. 1983 | Dec. 1982 | Jan. 1983 | Dec. 1982 |
| TOTAL NONAGRICULTURAL | 1648.6 | 1693.9 | 1698.7 | -2.7 | -2.9 | | | | | | |
| MANUFACTURING | 329.9 | 333.2 | 350.6 | -1.0 | -5.9 | 372.88 | 375.46 | 9.44 | 9.41 | 39.5 | 39.9 |
| Durable Goods | 195.3 | 196.9 | 211.5 | -0.8 | -7.7 | 378.54 | 384.74 | 9.44 | 9.43 | 40.1 | 40.8 |
| Furniture, Lumber and Wood | 12.9 | 12.4 | 12.5 | 3.7 | 2.9 | 387.83 | 381.23 | 9.97 | 9.75 | 38.9 | 39.1 |
| Stone, Clay and Glass | 7.0 | 7.9 | 7.0 | -11.4 | 0 | 365.72 | 360.23 | 9.45 | 9.43 | 38.7 | 38.2 |
| Primary Metals | 5.0 | 5.0 | 6.2 | -0.2 | -19.8 | 331.74 | 340.10 | 8.87 | 8.88 | 37.4 | 38.3 |
| Fabricated Metals | 32.5 | 32.4 | 34.5 | 0.3 | -5.7 | 425.14 | 443.72 | 10.42 | 10.59 | 40.8 | 41.9 |
| Nonelectrical Machinery | 76.6 | 76.9 | 87.1 | -0.3 | -12.0 | 387.93 | 392.09 | 9.65 | 9.61 | 40.2 | 40.8 |
| Electrical Machinery | 25.7 | 25.4 | 26.2 | 1.2 | -1.8 | 329.43 | 337.81 | 8.34 | 8.30 | 39.5 | 40.7 |
| Transportation Equipment | 4.9 | 6.0 | 4.5 | -18.1 | 8.8 | 383.30 | 390.82 | 9.93 | 9.97 | 38.6 | 39.2 |
| Other Durable Goods 2/ | 30.7 | 30.9 | 33.5 | -0.7 | -8.4 | 362.79 | 366.74 | 8.70 | 8.67 | 41.7 | 42.3 |
| Nondurable Goods | 134.6 | 136.3 | 139.1 | -1.3 | -3.3 | 365.72 | 365.27 | 9.45 | 9.39 | 38.7 | 38.9 |
| Food and Kindred | 43.4 | 45.1 | 44.4 | -3.7 | -2.2 | 348.69 | 340.69 | 8.85 | 8.56 | 39.4 | 39.8 |
| Textile and Apparel | 4.8 | 4.4 | 5.5 | 8.6 | -13.4 | 214.37 | 219.81 | 6.16 | 6.14 | 34.8 | 35.8 |
| Paper and Allied | 31.6 | 31.9 | 32.9 | -1.0 | -4.0 | 439.69 | 442.80 | 10.37 | 10.37 | 42.4 | 42.7 |
| Printing and Publishing | 35.3 | 35.3 | 35.0 | -0.1 | 0.8 | 364.34 | 367.15 | 10.38 | 10.52 | 35.1 | 34.9 |
| Chemical and Petroleum | 8.7 | 8.8 | 9.3 | -1.5 | -6.7 | 380.93 | 392.63 | 9.92 | 9.89 | 38.4 | 39.7 |
| Rubber and Leather | 10.9 | 10.8 | 12.0 | 0.5 | -9.6 | 298.34 | 300.09 | 7.81 | 7.96 | 38.2 | 37.7 |
| NONMANUFACTURING | 1319.4 | 1359.9 | 1348.1 | -3.0 | -2.1 | | | | | | |
| Mining and Quarrying | 7.9 | 6.5 | 13.4 | 20.3 | -41.3 | 477.81 | 528.63 | 13.53 | 13.52 | 35.3 | 39.1 |
| Metal Mining | 6.6 | 5.0 | 12.2 | 33.2 | -45.5 | 497.72 | 574.55 | 14.18 | 14.77 | 35.1 | 38.9 |
| Construction | 45.7 | 54.9 | 50.6 | -16.8 | -9.8 | 530.60 | 540.48 | 14.78 | 14.49 | 35.9 | 37.3 |
| Building | 13.3 | 15.7 | 15.8 | -15.5 | -16.1 | 484.50 | 481.43 | 13.13 | 12.77 | 36.9 | 37.7 |
| Highway and Heavy | 4.0 | 6.4 | 4.8 | -37.9 | -16.8 | 439.68 | 450.55 | 11.45 | 12.21 | 38.4 | 36.9 |
| Special Trades | 28.4 | 32.8 | 30.1 | -13.2 | -5.4 | 566.65 | 588.04 | 16.19 | 15.85 | 35.0 | 37.1 |
| Transportation | 58.9 | 61.7 | 61.9 | -4.5 | -4.8 | 357.93 | 362.23 | 9.70 | 9.79 | 36.9 | 37.0 |
| Railroads | 13.3 | 13.4 | 14.5 | -1.0 | -8.2 | 462.84 | 462.84 | 10.04 | 10.04 | 46.1 | 46.1 |
| Trucking and Warehousing | 21.6 | 23.5 | 23.0 | 8.0 | -6.0 | 422.22 | 434.08 | 11.86 | 11.86 | 35.6 | 36.6 |
| Public Utilities | 32.8 | 33.5 | 34.0 | -2.1 | -3.4 | 470.42 | 468.06 | 11.97 | 11.91 | 39.3 | 39.3 |
| Communications | 18.9 | 19.4 | 19.8 | -2.9 | -4.8 | 428.58 | 429.28 | 11.19 | 11.15 | 38.3 | 38.5 |
| Elec., Gas and Sanitary | 13.9 | 14.1 | 14.2 | -0.9 | -1.5 | 518.81 | 512.95 | 12.81 | 12.76 | 40.5 | 40.2 |
| Trade | 415.9 | 434.0 | 423.3 | -4.2 | -1.8 | 215.02 | 210.50 | 7.12 | 7.04 | 30.2 | 29.9 |
| Retail | 307.3 | 323.3 | 311.1 | -5.0 | -1.2 | 170.84 | 167.96 | 6.19 | 6.13 | 27.6 | 27.4 |
| General Merchandise | 45.7 | 49.1 | 47.1 | -6.9 | -2.9 | 170.54 | 176.40 | 5.61 | 5.60 | 30.4 | 31.5 |
| Food Stores | 43.9 | 45.3 | 43.9 | -3.1 | -0.1 | 206.92 | 209.19 | 7.39 | 7.34 | 28.0 | 28.5 |
| Automotive | 132.6 | 33.4 | 32.9 | -2.4 | -1.0 | 242.59 | 249.88 | 7.22 | 7.16 | 33.6 | 34.9 |
| Eating and Drinking | 98.9 | 104.1 | 99.7 | -5.0 | -0.8 | 93.47 | 82.56 | 4.58 | 4.30 | 21.5 | 19.2 |
| Wholesale | 108.6 | 110.7 | 112.3 | -1.9 | -3.3 | 364.33 | 360.84 | 9.39 | 9.30 | 38.8 | 38.8 |
| F.I.R.E. | 97.2 | 97.7 | 97.5 | -0.5 | -0.3 | | | | | | |
| Finance | 46.0 | 46.0 | 46.0 | 0.1 | -0.1 | | | | | | |
| Insurance | 35.5 | 35.4 | 35.3 | 0.3 | 0.5 | | | | | | |
| Real Estate | 15.7 | 16.4 | 16.1 | -3.9 | -2.6 | | | | | | |
| Service Industries | 374.8 | 381.7 | 372.2 | -1.8 | 0.7 | | | | | | |
| Hotel and Lodging | 18.5 | 19.3 | 18.5 | -4.1 | -0.1 | | | | | | |
| Business Services | 54.7 | 57.6 | 53.7 | -5.0 | 1.9 | | | | | | |
| Health Services | 133.4 | 133.4 | 130.4 | 0 | 2.3 | | | | | | |
| Private Education | 24.0 | 24.4 | 23.3 | -1.8 | 2.9 | | | | | | |
| Soc. Serv., Museums etc. | 80.2 | 81.1 | 81.1 | -1.1 | -1.1 | | | | | | |
| Government | 285.6 | 290.6 | 295.2 | -1.7 | -3.2 | | | | | | |
| Federal | 29.9 | 30.1 | 30.6 | -0.7 | -2.3 | | | | | | |
| State | 73.0 | 73.7 | 72.5 | -0.9 | 0.6 | | | | | | |
| Local | 182.8 | 186.9 | 192.1 | -2.2 | -4.8 | | | | | | |

1/ Totals may not add because of rounding.
2/ Includes Scientific Instruments and Miscellaneous Industries.

# Labor Market Conditions

## Labor Force Data: State, SMSAs, and Counties

| Area or County | January, 1983 Prelim. | | |
|---|---|---|---|
| | Labor Force[1/] | Unemp. | Un. Rate |
| State of Minnesota | 2100694 | 217927 | 10.4 |
| Metropolitan Areas | | | |
| Duluth/Superior (Duluth City Only) | 36517 | 5610 | 15.4 |
| Fargo/Moorhead (Clay County, MN Only) | 27053 | 2168 | 8.0 |
| Minneapolis/St. Paul SMSA[2/] | 1146460 | 92944 | 8.1 |
| Rochester SMSA (Olmsted Co.) | 57108 | 3858 | 6.8 |
| St. Cloud SMSA[3/] | 74421 | 8722 | 11.7 |
| Counties | | | |
| Aitkin | 5322 | 1368 | 25.7 |
| Anoka | 109639 | 9905 | 9.0 |
| Becker | 11862 | 2506 | 21.1 |
| Beltrami | 15833 | 1921 | 12.1 |
| Benton | 11148 | 1312 | 11.5 |
| Big Stone | 3713 | 401 | 10.8 |
| Blue Earth | 28332 | 2257 | 8.0 |
| Brown | 14920 | 1605 | 10.8 |
| Carlton | 11896 | 1877 | 15.8 |
| Carver | 20868 | 2017 | 9.7 |
| Cass | 9664 | 1765 | 18.3 |
| Chippewa | 6935 | 942 | 13.6 |
| Chisago | 14636 | 1550 | 10.6 |
| Clay | 27053 | 2168 | 8.0 |
| Clearwater | 3985 | 1066 | 26.8 |
| Cook | 2176 | 411 | 18.9 |
| Cottonwood | 6997 | 570 | 8.1 |
| Crow Wing | 16617 | 2756 | 16.6 |
| Dakota | 108072 | 9299 | 8.6 |
| Dodge | 7667 | 997 | 13.0 |
| Douglas | 12795 | 1548 | 12.1 |
| Faribault | 10732 | 1301 | 12.1 |
| Fillmore | 11515 | 1291 | 11.2 |
| Freeborn | 17380 | 1753 | 10.1 |
| Goodhue | 19232 | 1865 | 9.7 |
| Grant | 3267 | 352 | 10.8 |
| Hennepin | 517919 | 38882 | 7.5 |
| Houston | 8960 | 804 | 9.0 |
| Hubbard | 5399 | 1015 | 18.8 |
| Isanti | 10115 | 1452 | 14.4 |
| Itasca | 17739 | 3942 | 22.2 |
| Jackson | 7389 | 469 | 6.3 |
| Kanabec | 5471 | 975 | 17.8 |
| Kandiyohi | 17240 | 1993 | 11.6 |
| Kittson | 3120 | 354 | 11.3 |
| Koochiching | 7692 | 1266 | 16.5 |
| Lac qui Parle | 5389 | 465 | 8.6 |
| Lake | 4861 | 1342 | 27.6 |
| Lake of the Woods | 1764 | 203 | 11.5 |
| Le Sueur | 11194 | 1595 | 14.2 |
| Lincoln | 3395 | 380 | 11.2 |
| Lyon | 14137 | 1573 | 11.1 |
| McLeod | 15953 | 1775 | 11.1 |
| Mahnomen | 2568 | 385 | 15.0 |
| Marshall | 6009 | 1165 | 19.4 |
| Martin | 13419 | 1449 | 10.8 |
| Meeker | 10457 | 1596 | 15.3 |
| Mille Lacs | 8614 | 1192 | 13.8 |
| Morrison | 12575 | 2098 | 16.7 |
| Mower | 17250 | 1779 | 10.3 |
| Murray | 5606 | 700 | 12.5 |
| Nicollet | 14512 | 1089 | 7.5 |
| Nobles | 11388 | 912 | 8.0 |
| Norman | 4230 | 414 | 9.3 |
| Olmsted | 57108 | 3858 | 6.8 |
| Otter Tail | 23151 | 3119 | 13.5 |
| Pennington | 6327 | 811 | 12.8 |
| Pine | 9459 | 1678 | 17.7 |
| Pipestone | 5250 | 412 | 7.8 |
| Polk | 15161 | 1617 | 10.7 |
| Pope | 5198 | 694 | 13.4 |
| Ramsey | 253800 | 19839 | 7.8 |
| Red Lake | 2039 | 469 | 22.5 |
| Redwood | 10183 | 885 | 8.7 |
| Renville | 10715 | 1187 | 11.1 |
| Rice | 23170 | 2504 | 10.8 |
| Rock | 5141 | 313 | 6.1 |
| Roseau | 5314 | 994 | 18.7 |
| St. Louis (Inc. Duluth) | 95980 | 21976 | 22.9 |
| Scott | 24895 | 2615 | 10.5 |
| Sherburne | 14071 | 2035 | 14.5 |
| Sibley | 7952 | 985 | 12.4 |
| Stearns | 48902 | 5375 | 11.0 |
| Steele | 15925 | 1535 | 9.6 |
| Stevens | 5558 | 497 | 8.9 |
| Swift | 5962 | 708 | 11.9 |
| Todd | 11000 | 1344 | 12.2 |
| Traverse | 2531 | 294 | 11.6 |
| Wabasha | 9127 | 1225 | 13.4 |
| Wadena | 5280 | 852 | 16.1 |
| Waseca | 8615 | 887 | 10.3 |
| Washington | 62596 | 4805 | 7.7 |
| Watonwan | 6330 | 623 | 9.8 |
| Wilkin | 4113 | 439 | 10.7 |
| Winona | 21662 | 2471 | 11.4 |
| Wright | 34035 | 4032 | 11.8 |
| Yellow Medicine | 7173 | 782 | 10.9 |

Technical Notes:

1/ Labor force data is computed according to BLS methodology. The method includes an adjustment to assure that the sum of the substate areas equals the separately estimated State total. This adjustment is Applied to all county and SMSA areas. County and area unemployment was multiplied by an adjustment factor of 1.46; employment was multiplied by 1.02. For a more detailed explanation see the Review of Labor and Economic Conditions, Vol. 4, No. 4, (February 1978 issue), p. 29.

2/ Anoka, Carver, Chisago, Dakota, Hennepin, Ramsey, Scott, Washington, and Wright Counties.

3/ Benton, Sherburne, and Stearns Counties.

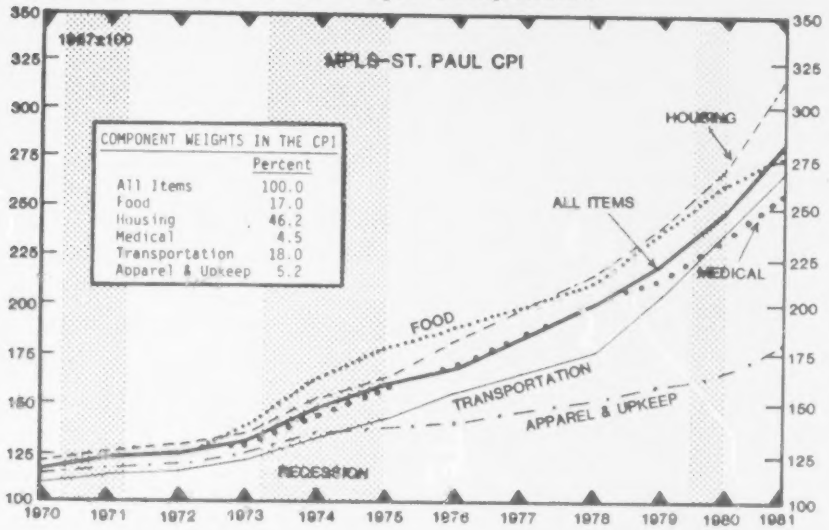
# Income & Purchasing Power

This section describes how Minnesotans fare with respect to their ability to acquire goods and services needed to meet their needs and wants and how they compare with others in the United States in this respect. Real Per Capita Personal Income measures money income received by all individuals from wages and salaries, dividends, rent, professional and farm income, personal interest payments, and transfer payments, less personal contributions for social security, all adjusted for the price level as indicated by the CPI and for population. The Consumer Price Index (CPI) measures changes in the price of a representative combination of goods and services consumed by urban wage and salary workers relative to 1967. The inverse of the CPI (1/CPI) indicates the value of the dollar; when the CPI increases the value of the dollar falls. The change in the CPI over any period of time divided by the value at the beginning of the period gives the percentage change, or the rate of inflation.

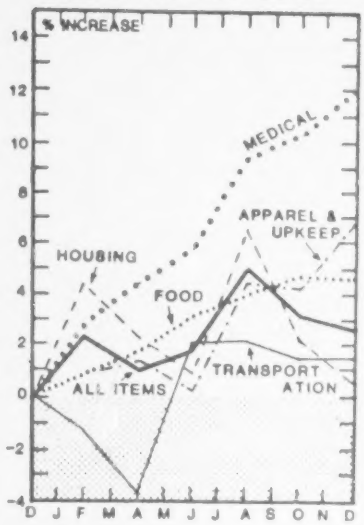
| Income And Purchasing Power | MINNESOTA | | | UNITED STATES | | |
|---|---|---|---|---|---|---|
| | IV Qtr. 1982 | Percent Change from | | IV Qtr. 1982 | Percent Change from | |
| | | Last Qtr. | Year Ago | | Last Qtr. | Year Ago |
| INCOME STATISTICS | | | | | | |
| Personal Income 1/* | | | | | | |
| Total Personal Income (in Billions) | 47.4 | -1.3 | 3.0 | 2623.2 | 1.2 | 5.2 |
| Due to Labor 2/ | n.a | n.a | n.a | 1730.2 | 15.3 | 41.4 |
| Due to Property 3/ | n.a | n.a | n.a | 608.1 | 31.9 | 26.6 |
| Due to Transfer Payments 4/ | n.a | n.a | n.a | 397.2 | 52.4 | 36.2 |
| Total Disposable Personal Income | n.a | n.a | n.a | 2223.5 | 1.2 | 5.8 |
| As Percent of Total Pers. Inc. | n.a | n.a | n.a | 84.8 | 0.0 | 0.7 |
| Per Capita Personal Income 5/ | | | | | | |
| Current dollar Value | 11431 | -1.3 | 2.5 | 11266 | 0.9 | 4.2 |
| Real (1967) Dollar Value | 3726 | 0.0 | -1.5 | 3846 | 0.7 | -0.2 |
| Real Median Family Money Income 5/* | | | | | | |
| All Families | 8652 | 0.3 | -1.5 | 8597 | 0.7 | -0.4 |
| Four Person Families | 9002 | 0.5 | -1.4 | 10016 | 0.7 | -0.4 |
| Earnings of Production Workers in Mfg. 6/ | | | | | | |
| Average Weekly Earnings | 365.69 | 3.3 | 6.7 | 339.07 | 1.9 | 3.9 |
| Real Average Weekly Earnings 7/ | 119.19 | 4.7 | 2.6 | 115.76 | 1.7 | -0.6 |
| Income Related Criteria 8/ | | | | | | |
| Standard Budgets | | | | | | |
| Low | 15118 | --- | 7.8 | 15323 | --- | 9.1 |
| Moderate | 25799 | --- | 9.2 | 25407 | --- | 9.8 |
| High | 38698 | --- | 9.7 | 38060 | --- | 10.6 |
| Poverty Level Income | | | | | | |
| Urban Family of Four | 9300 | --- | 10.1 | 9300 | --- | 10.1 |
| Nonurban Family of Four | 7910 | --- | 10.0 | 7910 | --- | 10.0 |
| MEASURES OF PRICE CHANGE AND INFLATION | | | | | | |
| Consumer Price Level (CPI) 9/ | 306.8 | -1.3 | 4.0 | 292.9 | 0.2 | 4.5 |
| Food | 291.5 | 0.7 | 4.5 | 286.8 | -0.4 | 3.3 |
| Housing | 361.0 | -3.3 | 3.8 | 319.2 | -0.2 | 5.0 |
| Transportation | 282.0 | -0.5 | 1.7 | 296.9 | -0.2 | 2.2 |
| Medical | 201.3 | 2.1 | 11.7 | 339.4 | 2.5 | 10.7 |
| Purchasing Power of the Dollar (1/CPI) | .33 | 1.2 | -3.8 | .34 | -0.3 | -4.5 |
| Wholesale Price Index | n.a | n.a | n.a | 300.3 | 0.1 | 1.5 |
| Industrial Commodities | n.a | n.a | n.a | 314.8 | 0.6 | 1.7 |

# Income & Purchasing Power

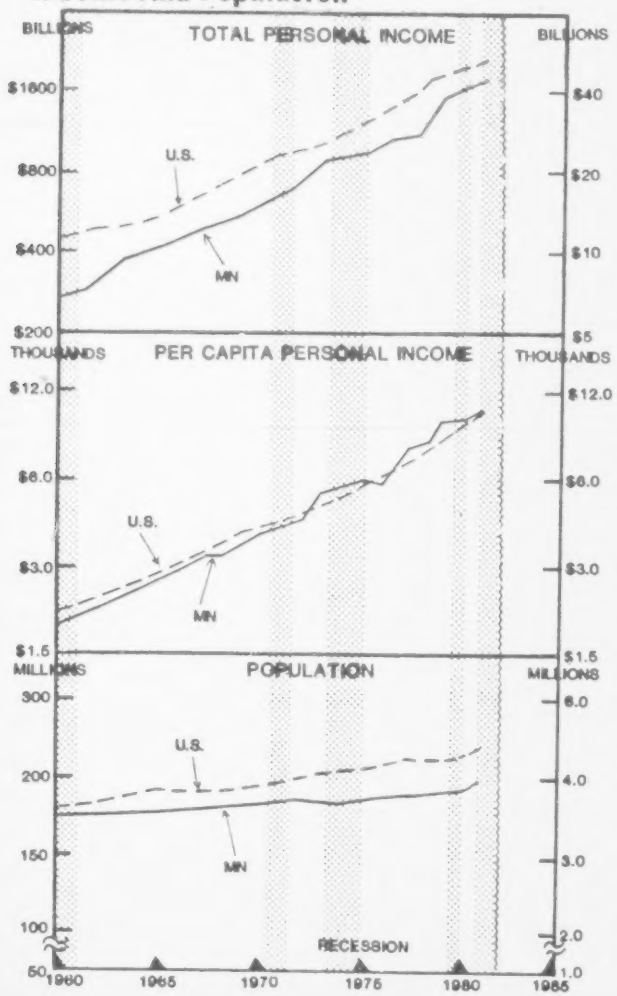
## Consumer Price Index- Major Components



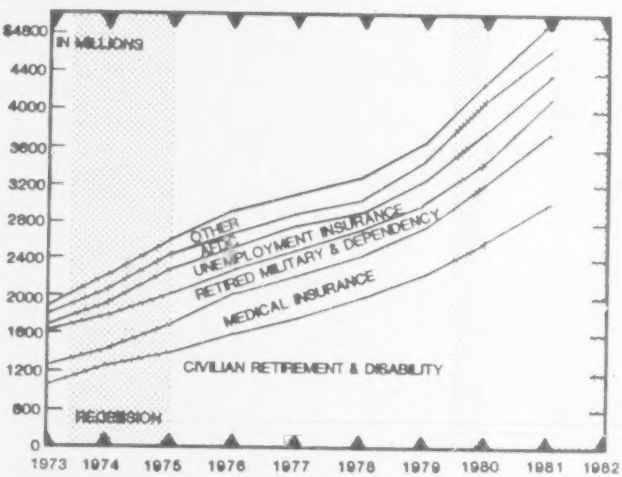

## % △ From Dec. 1981



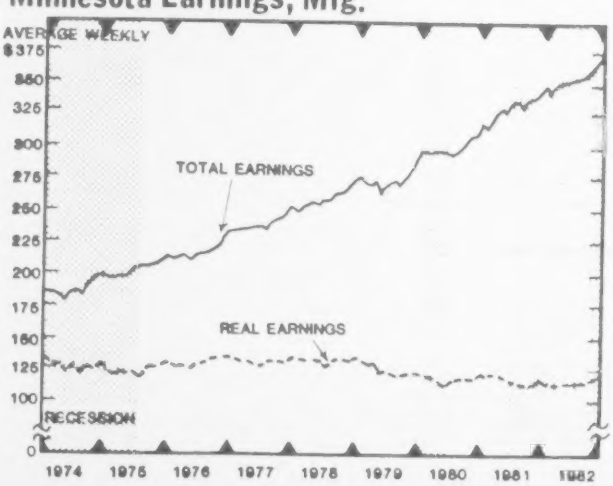

## U.S. & MN Personal Income And Population




## Government Transfer Payments To Individuals In Minnesota




## Minnesota Earnings, Mfg.



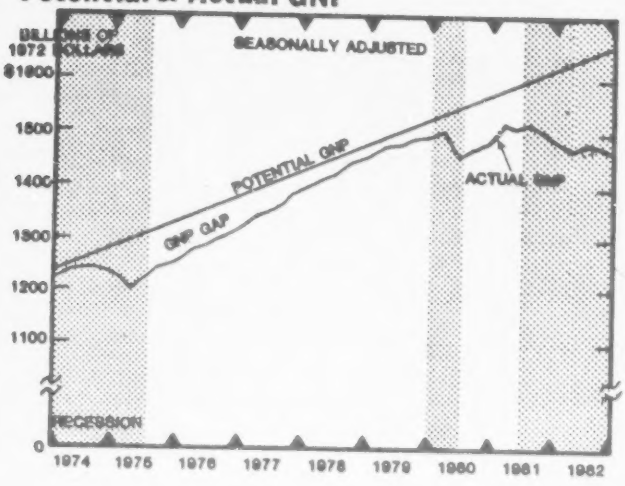
# Output, Expenditures, Money, & Credit Conditions

The overall level and composition of National Output shape labor market conditions, and nominal and real earnings. (Nominal values are not adjusted for inflation; real values are adjusted for inflation.) Personal Consumption Expenditures, especially on Durable Goods, together with data on Retail Sales, are frequently used as indicators of future levels of employment. The number of Building Permits influences the level of employment in construction and related industries. The Federal Budget Deficit is a key indicator of the stimulatory effect of government policy. Whether this effect results in inflation, improved employment conditions, or some combination of the two, depends in part, upon the degree to which present productive capacity is utilized. Present and anticipated Money and Credit Conditions determine the ability of consumers, business, and State and Local governments to borrow in order to finance purchases, which, in turn, generate income and employment. Unfortunately, most data of this kind is available only for the Nation. However, in an economy as interdependent as ours, analysis of the directions of change of key national indicators is a useful tool for understanding the course of the State economy.

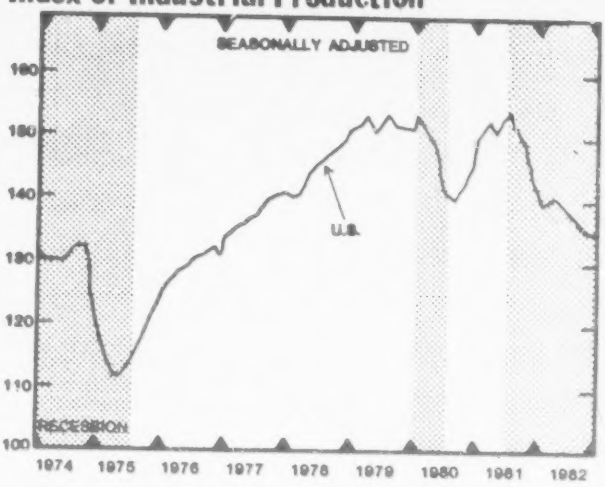
| Output, Expenditure, Money, And Credit Conditions | MINNESOTA | | | UNITED STATES | | |
|---|---|---|---|---|---|---|
| | IV Qtr. 1982 | Percent Change from | | IV QTR. 1982 | Percent Change from | |
| | | Last Qtr. | Year Ago | | Last Qtr. | Year Ago |
| OUTPUT AND EXPENDITURE | | | | | | |
| Retail Sales (in millions of dollars) | 1765 | 7.4 | 10.1 | 91722 | 3.0 | 5.9 |
| Private Housing Units Authorized by Building Permits 1/ | 20340 | 23.1 | 30.1 | 1218 | 23.7 | 60.5 |
| Index of Industrial Production 2/ | n.a | n.a | n.a | 135.1 | -2.2 | -7.7 |
| Gross National Product (in billions of 1972 dollars)* 3/ | n.a | n.a | n.a | 1471.7 | -0.6 | -1.2 |
| Personal Consumption Expenditures | n.a | n.a | n.a | 968.0 | 1.2 | 2.6 |
| Durable Goods | n.a | n.a | n.a | 142.8 | 4.7 | 6.5 |
| As Percent of Pers. Cons. | n.a | n.a | n.a | 14.8 | 3.5 | 4.2 |
| Nondurable Goods | n.a | n.a | n.a | 368.2 | 0.6 | 1.4 |
| Services | n.a | n.a | n.a | 457.0 | 0.7 | 2.4 |
| Gross Private Domestic Investment | n.a | n.a | n.a | 183.6 | -11.0 | -16.1 |
| As Percent of GNP | n.a | n.a | n.a | 12.5 | -10.1 | -15.0 |
| Nonresidential, Fixed | n.a | n.a | n.a | 159.6 | -2.3 | -8.4 |
| Residential | n.a | n.a | n.a | 41.7 | 5.6 | 4.5 |
| Net Exports | n.a | n.a | n.a | 21.1 | -23.3 | -42.2 |
| Government Purchases | n.a | n.a | n.a | 299.0 | 2.7 | 2.6 |
| Federal | n.a | n.a | n.a | 123.7 | 6.5 | 6.6 |
| State and Local | n.a | n.a | n.a | 175.4 | 0.3 | 0.1 |
| GNP Gap (Full Empl. Minus Present GNP) | | | | | | |
| 1972 Dollars (in billions) | n.a | n.a | n.a | 187.1 | 13.1 | 55.4 |
| Current Dollars (in billions) | n.a | n.a | n.a | 393.8 | 14.1 | 61.7 |
| Current Federal Budget Deficit 4/ | | | | | | |
| As Percent of GNP | n.a | n.a | n.a | -6.4 | -5.1 | -3.4 |
| Inventory to Sales: Durable Goods in Mfg. | n.a | n.a | n.a | 2.48 | 4.6 | 5.1 |
| New Orders to Shipments: Durable Goods | n.a | n.a | n.a | 1.00 | 5.0 | 4.0 |
| Plant Capacity Utilization Rate in Mfg. 5/ | n.a | n.a | n.a | 67.6 | -3.0 | -9.6 |
| MONEY AND CREDIT CONDITIONS | | | | | | |
| Interest Rates | | | | | | |
| Discount Rate | 9.25 | -14.6 | -29.1 | 9.25 | -14.6 | -29.1 |
| Prime Rate | n.a | n.a | n.a | 11.96 | -18.8 | -29.7 |
| Rate on Conventional Mortgages | 13.37 | -10.0 | -13.2 | 14.32 | -7.6 | -10.9 |
| Federal Funds Rate | n.a | n.a | n.a | 9.28 | -15.7 | -31.7 |
| Consumer Installment Credit Outstanding | n.a | n.a | n.a | 338411 | 1.3 | 2.4 |
| As Percent of Disposable Personal Income | n.a | n.a | n.a | 15.2 | 0.1 | -3.2 |

# Output, Expenditures, Money, & Credit Conditions

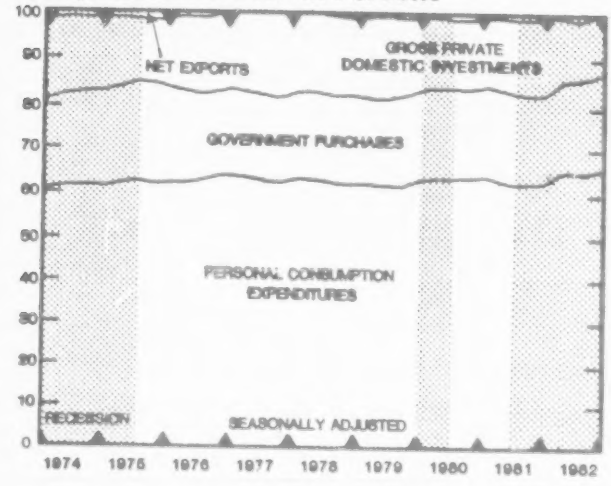
## Potential & Actual GNP



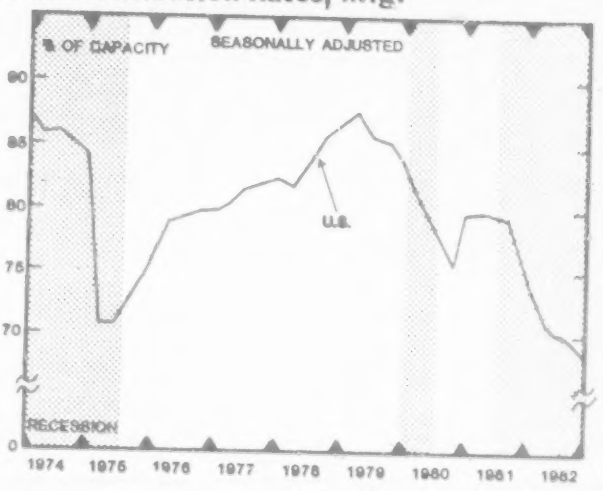

## Index of Industrial Production [1]



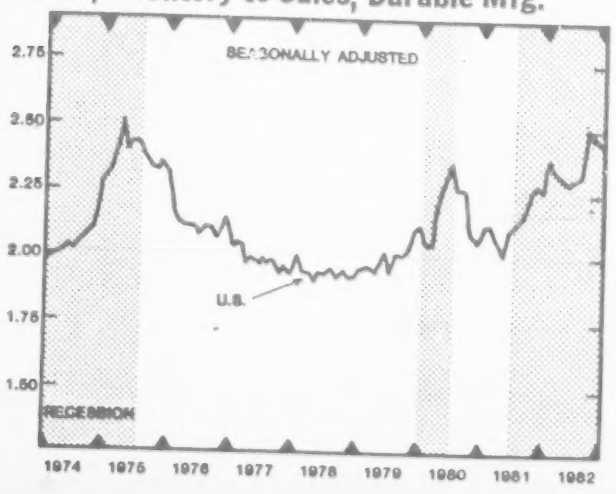

## Composition of GNP in Percent



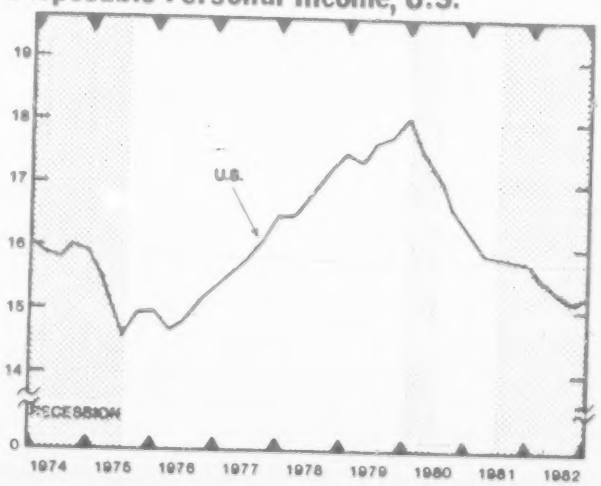

## Plant Utilization Rates, Mfg.[1]




## Ratio, Inventory to Sales, Durable Mfg.




## Ratio, Consumer Installment Debt to Disposable Personal Income, U.S.



# Technical Notes

For the reader's convenience the notes which follow are organized in sequence for the pages which appear in the statistical section. Each note corresponds to the footnote or reference notation for the given page.

* Wherever an asterisk appears the data is seasonally adjusted.

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1/ Four percent is a generally agreed upon criteria for measuring full employment. It allows for the movement of persons between jobs. Labor Force Unemployment Rate less four percent, based on officical estimates.
2/ Estimated worker hours expended in nonfarm payroll employment as a percent of potential worker hours assuming that each member of the nonfarm labor payroll labor force was employed at a standard rate of 40 hours per week.

Page S-3

1/ The handbook unemployment rate is the estimate of unemployment prior to the Current Population Survey (CPS) adjustment.

Page S-7

1/ In billions of dollars at an annual rate.
2/ The contribution to total Personal Income of wages, salaries, and other labor income. Percent change entry in Labor Income Impact is the percent that the change in labor income comprises of the change in total Personal Income. The is not available for Minnesota on a quarterly basis.
3/ The figure for the quarter is the contribution to total Personal Income of proprietor's rental, dividend, and interest income. The percent change entry in Property Income Impact is analogous to the Labor Income Impact described in 2/ above.
4/ The contribution to total Personal Income of transfer payments (unemployment compensation, AFDC, etc.) The percent change entry is analogous to the Labor Income Impact in 2/ above.
5/ In dollars at an annual rate.
6/ In dollars per week.
7/ Real average weekly earnings are the average weekly earnings of production workers in manufacturing divided by the CPI.
8/ Annual data.
9/ Value is revised CPI. (See "Program Notes," P. 6, First Quarter 1978 Review.)

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1/ U. S. data annualized in thousands. Source: Bureau of the Census.
2/ Base Year is 1967. Source: Federal Reserve Board
3/ Totals may not add due to rounding.
4/ Values shown in percent change columns are deficit as percent of GNP for period citied.
5/ Source: Federal Reserve Board.

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1/ Source: Federal Reserve Board.

# Available Publications

Nonagricultural Wage & Salary Employment, Hours & Earnings, January 1974 - January 1982, Minnesota (June 1982)

Employment, Hours, and Earnings, 1970-1982, Minneapolis-St. Paul Area (June 1982)

1980 Occupational Employment Statistics in Minnesota (May 1982)

1981 Occupational Employment Statistics in Minnesota (November 1982)

Important Minnesota Occupations by Industry (January 1983)

Minnesota Employment Outlook to 1985 (January 1981)

Minneapolis-St. Paul SMSA Employment Outlook to 1985 (March 1982)

Review of Labor and Economic Conditions and its Monthly Supplement (Recent Issues)

Statistical Supplement to the Annual Report of the Department of Economic Security (September 1981)

Unemployment Compensation Program Statistics: Total Wages, Taxable Wages, Contributions Due, and Benefits Paid, 1950-1978 (April 1980)

Minnesota Employment and Wage data by County (Second Quarter 1982) Limited number available for 1975-1981

Average Covered Employment & Wages by Economic Region for the Calendar Year 1981 by two Digits of Industry (also available for 1976-1980)

Occupational Hiring Patterns in Minnesota (October 1981)

Characteristics of Unemployment Insurance Claimants, 1981 (March 1982)

The Economic Outlook for 1983 (February 1983)

Minnesota Labor Market Information Directory (April 1982)

1982 Minnesota Salary Survey by Area (August 1982)

1982 Minnesota Hospitals and Nursing Homes Salary Survey (September 1982)

1982 Minnesota Wage Data by Industry and Size of Firm (September 1982)

Labor Market Information Summary for 1982 for Minnesota (August 1982), Minneapolis-St. Paul SMSA (May 1982), St. Cloud SMSA (May 1982), Duluth SMSA (August 1982), and Rochester SMSA (August 1982)

These publications are available upon request while supply lasts.

Write to: Director, Research and Statistical Services Office
Minnesota Department of Economic Security
390 North Robert Street
St. Paul, Minnesota 55101